

78.

FIELD NOTES OF SURVEYS.

MINNER
TRANSIT BOOK

363

it lost.

PLEASE MAIL THIS BOOK TO

County Surveyor

~~JOHN W. CURO,~~

WALKER, MINN.

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Notes on sec 27-142-31 74886

{ Pages 90 to 105 Notes } Horst.
for Sec. 7-twp 142 Rge 31.

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141-28-29

Thursday June 3rd 1915.

Fair & warm.

I am working for Cass County
on the survey of the west
boundary of Township 141 N.
Range 28 W. 5th mer., being the
East Boundary of Township 141 N.
Range 29 W. 5th mer.

Leave Walker @ 9:28 A.M. on
M & I Ry. Arrive Backus 10:17
A.M. Rly. fare 49¢.

At Backus I find Horton's
auto waiting for me, and I
load my outfit aboard and
go to Longville, Minn. Arrive
Longville about 1 P.M. and
take dinner @ Ford's hotel - 35¢.

I find that I must wait
until tomorrow to get a team
to take me to William's place,
where I will board while on
the survey, so I remain
over the night @ Ford's
hotel.

1278

Gronmiller.

141-28-29

Friday June 4th 1915.

Fair & warm.

I remain at Ford's hotel
until 5 P.M. waiting for
a team. I ride out to
Geo. C. Williams' place with
E. J. Cornahan. Arrive @
7 P.M. just in time for supper.

-278

Gronmiller...

Time Sheet for Survey of W. Boundary Twp. 141 N. Rge. 28 W. 5th M.
JUNE - 1915.

	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
				SUN							SUN					
Geo. W. Miller.	1	1	1	0	1	$\frac{1}{2}$	1	0	1	0	0	1	0			
John W. Curo.																
Frank Williams.	0	0	0	0	1	$\frac{1}{2}$	1	0	1	0	0	0	$\frac{1}{2}$			
Harry Williams.	0	0	0	0	1	$\frac{1}{2}$	1	0	1	0	0	0	0			
Bert Cornahan.	0	0	0	0	1	$\frac{1}{2}$	1	0	1	0	0	0	0			
George Mankins.	0	0	0	0	1	$\frac{1}{2}$	1	0	1	0	0	0	0			
Board of Miller of Geo. C. Williams.																
		2	4	4	4	4	4	4	4	3	0	0	2	1		

(3)

141-28-29

5

Note: $\frac{1}{2}$ day on June 15th is for Frank Williams
and team. - \$2.50

278

141-28-29

Saturday June 5th 1915.

Rain all day and field work is impossible.

I put in day reading notes of former U. S. survey, and copying same.

278

Growmiller.

(5)

7

141-28-29

Sunday June 6th 1915.

All day @ Geo C Williams.

278

Gronmiller -

8

⑥

278

141-28-29

Monday June 7th 1915.

cloudy.

Groommiller. Transit & chain.

Harry Williams. Axe & chain.

Frank Williams. Axe.

Bert Cornahan. "

George Mankins. "

we use a new "Gurley" eng'rs.
transit in perfect adjustment
and a new 100' Chicago steel
tape.

We proceed to the S.E. cor. of
Sec. 36-141-29, being the S.E. cor.
of Twp. 141 N, Range 29 W 5th Mer.
where we find a $2\frac{1}{4}$ " x 4'
galvanized iron pipe, capped
on top, driven nearly its full
length in the ground, as record-
ed in Survey Record # 225, Book
A, Page 556 of County Record:
Book of Surveys.

I set the Transit over this
corner, backsight on random
North, run by Curo during the
winter of 1912-13, turn $50^{\circ}47'$ to
Groommiller.

⑦

N 5°21' W
Var 8°35'

9

141-28-29

the left and run north on a new random. Assuming Curo's measurements on his former survey to be correct, this new random should follow the true range line very closely.

We shoot this line ahead until we intersect the N.E. Cor. of Sec. 36-141-29, as set by Curo and recorded in Survey Record #225, Book A, Page 556, County Record Book of Surveys, which shows that we are on the true Range line.

From the notes of Curo's former survey, I figure the correct distance between this N.E. Cor. Sec. 36-141-29 and the S.E. Cor. Twp 141-29 (true length of East boundary Sec. 36-141-29) to be 5460.54'. Starting at this point we chain north on our random.

@ 7156.50 — Hub.

278

Quit for night.

Gronmiller

141-28-29

Tuesday June 8th 1915.

Rain all morning and we
do not go out.

278

P.M.

Growmiller. Transit & chain.
George Mankins. Axe & chain.
Harry Williams. Axe.
Frank Williams. "
Bert Cornahan. "
Same Tools.

We cont. north on Range line
between Twp. 141-29 and Twp.
141-28.

@ 8188.40 - Hub.

@ 8190.81 - Set hub and
tack for temp. $\frac{1}{4}$ Cor. on East
side Sec. 25-141-29.

quit for night.

Growmiller.

⑨

11

141-28-29

Wednesday June 9th 1915.

Fair & warm.

Groommiller. Transit & chain.

Gro. Mankins. Axe & chain.

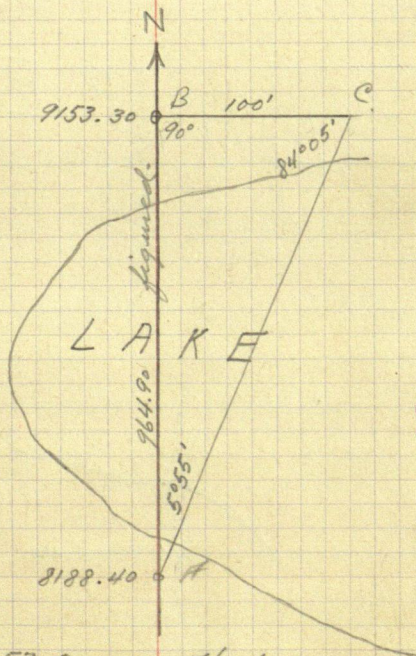
Harry Williams. Axe.

Frank Williams. "

Best Cornahan. "

Same tools.

We cont. N. on Range line.
Triangle lake as follows.



278

@ 9153.30 - Hub.

Groommiller.

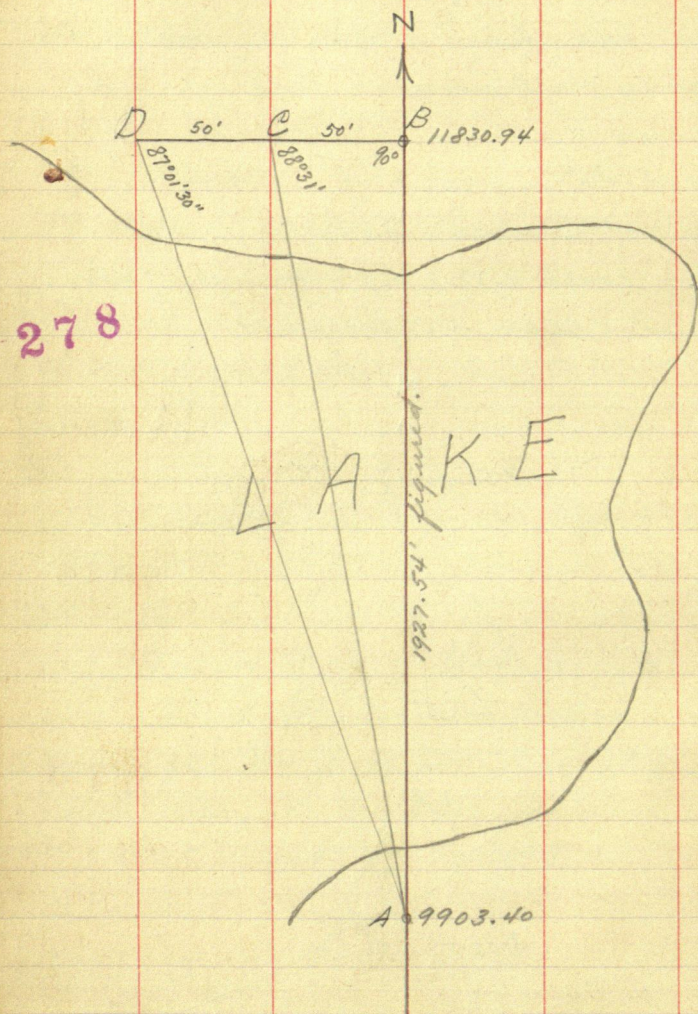
12

(10)

141-28-29

@ 9903.40 - Hub.

we triangle lake as follows:



@ 11830.94 - Hub.

Grovermiller...

(11)

13

141-28-29

@ 12085.00 - Hub.

@ 12430.90 - "

@ 12940.10 - "

@ 13601.40 - "

@ 13651.35 - Set hub and
tack for temp. $\frac{1}{4}$ cor. on E. boundary
Sec. 24-141-29.

@ 14065.00 - Hub.

@ 14713.50 - "

Quit for night.

278

Brown Miller.

14

(12)

141-28-29

Thursday June 10th 1915.

Rain all day and we do
not go out.

L 278

Growmiller.

141-28-29

Friday June 11th, 1915.

Fair & warm.

Growmiller. Transit & chain.

Geo. mankins. Axe & chain.

Frank Williams. Axe

Harry Williams. "

Bert Cornahan. "

278

Same tools.

We cont. N. on Range line.

@ 15595.80 - Hub.

@ 16234.90 - "

@ 16381.62 - Set hub and tack
for temp. Cor. to Secs. 13-24-141-29.

@ 17781.30 - Hub.

@ 18453.50 - "

@ 19111.89 - Set hub and tack
for temp. $\frac{1}{4}$ Cor. on E. boundary
Sec. 13-141-29.

quit for night.

I receive a Telegram
and must leave at once
for Minneapolis on urgent
personal business. I walk

Growmiller.

16

(14)

to Hackensack and Take
Train to Walker.

278

Crowmilla

Saturday June 12th 1915
and
Sunday June 13th 1915.

I am in Minneapolis on
personal business. I
leave Minneapolis Sunday
evening @ 7:40 on N.P.

278

Growmiller -

Monday June 14th 1915.

Arrive Walker @ 2:52 A.M.
Register Hotel Chase.

Leave Walker @ 9:28 A.M.
and go to Backus. E. W. Bailey
of Backus drives me out
to Longville in Horton's car.

Arrive Longville @ 3 P.M. and
proceed at once to George
C. Williams' place.

278

Growmiller

Tuesday June 15th 1915.

As per Curo's orders I
leave Geo. S. Williams' place
and proceed with survey
outfit to La Valli's (Twp. 140-29)
to help Donner in the survey
of Secs. 2-11-140-29.

Frank Williams drives me
there in a buggy. \$2.50
man & team.

270

also

Grover Miller.

142-31 (7)

21

Monday August 10-1915

I left Morristown Aug 9th at
8:05 A.M., Via Dan Patch Ky

Ar Mpls 9-50? A.M. RR fare 1.78

Lo Mpls 7:40 P.M. Via NP & M & S Ky
fr Walker Min RR fare 3.90

Aug 10-1915 Tuesday

Ar Walker @ 2:55 A.M. get
room 9. at Hotel Chase

At 8 A.M. I report at Curo's
office where I meet Molyneux -
Coors - & Curo

Molyneux & Coors take 9 AM train
to Pine River

Curo and I all AM in office
checking & copying M.S. Guild
notes Breakfast & dinner at
Hotel Chase

P.M.

Curo & I go in Auto to Curo's
Camp in Sec 28-142-31 where
I am to assist in survey

Meet Baldern
and the remainder of P.M. assist on
survey of N line of Sec 28 in
cutting brush & running transit

P.M. Sec 28.

22

(2)

192-31

Wednesday, Aug. 11th 1915

Day fair - very warm.

Breakfast 6.30

Scott. Heller + Brightly Transit

Horst Flag + Ex

Curo. Flag + Chain.

Baldwin goes with to north line of Sec. 28 to make correction of quarter corner. Find corner set by Curo and in checking from old B.T.'s of Son survey, which are as follows. W.P. 30 N 86 E 82: W.P. 30 S 88, W 136. Find random line we have been running on 51.1' to far north, at station 2592

$$51.1 \div 2592 = .01971$$

$$.01971 \times 22,953 = 45.24 \text{ at } 22,953$$

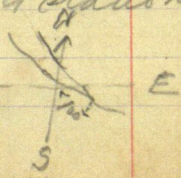
we measure out 45.24 for correction of this line. v. and set hub and back sight. Then set up transit on true quarter corner and run new N random line of Sec 28 going north using old stationing

Hub 27 + 57.6

Road 32 + 59

Road 32 + 91 } old

Go to dinner



3

142-31 23

Wednesday Aug 10th 1915

P.M. Warm Rain 4.30

P.M. Scott transit + chain H. + B.
 Coro. Flag + chain,
 Horst Flag + axe

We continue on north random
 line of Sec 28, 142-31 running east

Hub 36+222
 " 41+602
 " 49+29

At 49+29 we intersect Erandom
 line

Also set Hub on East line.
 quit

After supper J.W. Coro +
 Baldwin come in auto from
 town. We take Heller + Brightly
 transit and go to south quarter
 corner of Section 28, 142-31
 running N + S. (J.W. Coro, Scott,
 Baldwin, Horst + H. Coro) Here
 Mr Coro starts $\frac{1}{4}$ Line running
 north

A.M. Rice cuts on Erandom line
 P.M. " " " " " "

P.M. Scott.

24

④ 142-31

A.M. Thursday August 12-1915-
clear day Hot.

6.30 Breakfast.

Baldwin Leaves for 10 Mile
Lake, where he is to make
town site survey.

Scott. H+B. Transit+Chain.

Horst . Axe + Flag.

Curo chain + Flag.

Rice Axe.

We run $\frac{1}{4}$ line (H+S.) running
north. setting Transit at
true $\frac{1}{4}$. turning $\angle 93^{\circ} 49'$

Hub 1+92.2 (Temp)

✓ 4+58.6

✓ 7+88.1

✓ 11+34.9

P.M. Rice leaves for Bemidji
Scott - Transit + chain (H+B)
Curo - Chain + flag
Horst - Axe + Flag.

Continue. H+S. quarter line

Hub 15+41.4

✓ 19+72.3

We brush to Aikley road quit
for night.
leave Horst run Instrument.

E37 14231 25

Friday Aug 13, 1915

clear day hot

Breakfast 6.30

Scott H+ B. transit

Horst Axe + Flag.

Continue Nor $\frac{1}{4}$ Line Baldwin
+ H. Curo chaining north.

Find True $\frac{1}{4}$ sets 8.65' east The
road 9' west.

P.M.

Scott H+ B Transit

Horst Axe + Flag.

We go to west $\frac{1}{16}$ Cor. at South
of Section 28

At. 13+09.8 and backsight
west on random line

We turn $94^{\circ}11'$ Right

From true $\frac{1}{16}$ Cor. we continue
North on this Line cutting
brush + placing hubs but
not chaining

quit 5.40 P.M.

P.M. Scott.

Saturday Aug 14th 1915

Fair. Day - Hot - Heavy Shower 2.45

Breakfast 6.30 A.M.

Scott. H + B. Transit

Horst. Axe + Flag

We continue Mon West $\frac{1}{16}$
line setting hub but not
draining

P.M. Scott.

(7)

27

Sunday

Aug 15th 1915

In Camp all day.

J.M. Scott.

Monday August 16th 1915

Breakfast 6.30

6.20 Miller comes from Walker.

Scott H. + B Transit

Horst Axe + Flag.

We continue cutting brush
on west $\frac{1}{16}$ line. Baldwin

+ H. Curo chaining same

We intersect N random

line. Baldwin goes to

locate N.E Corner Sec 28

Horst + Scott with 100'

Chicago steel tape finish^{chaining}.

2687 2 wire Fence.

27+91.2 A hub.

$36+54.3 = 13,08.9$ where W.

$\frac{1}{16}$ and N Sec. random line

intersect.

At $\frac{1}{4}$ corner random line 51'

to far north.

$\therefore \frac{1}{16}$ corner 25.55' to far N.

$\frac{1}{4}$ corner at Sta 2592

$\therefore \frac{1}{16}$ cor. " " 1296

1296 we set hub. With

this as transit pt. and.

Back sight on N random

line. We turn $\angle 90^\circ$

Monday Aug 16th 1915 Cont.
And at 25.55' set hub So.
At sta. 36+28.3 we find W. $\frac{1}{16}$
true cor. sets 11.95' to far
west.

P.M.

Baldwin, Scott + Horst go to
inter of random lines at N.E.
Cor. Sec 28. to look for true
cor 21-22-27-28

Baldwin starts line So. on 910
var. from post supposed to
be true cor.

H. Curo arrives. He and
Baldwin go to locate M.C. 37.
Scott + Horst continue so line
from N.E. Cor Sec. 28

Miller, Tusler, Swanberg + Harig
arrive. Tusler gets supper.

Caro leaves after supper for
Walker.

P.M. Scott.

Tuesday Aug 17th 1915

Breakfast 6.15 A.M.

Scott Ht B Transit

Horst Axe + Flag.

We go to intr. Random lines,

N.E. Cor Sec 28 produce

N. line to tie in supposed

Sec. Cor. N.E. 28-142-31

Find True Cor sets N 47.45'

Baldwin + Curo chain N

random from N. $\frac{1}{4}$ cor.

J. Curo arrives

At 26 05.35 True N.E. Cor sets

No. 47.45'

At 90° East 2086.2 of Ea.

random line. We measure 315'

Back sight to M.C. and start

new Ea. random line, going

north. Baldwin goes to

M.C. Curo + son go to Sec. 27.

P.M.

Horst + H. Curo go to

Sec 27.

Scott + Baldwin continue

running Ea. random line, find

true cor. sets 57.2' West

P.M. Seth.

Tuesday Aug 17th 1915 Cont.

$$57.2 \div 3086 = .0185$$

$$.0185 \times 2650 = 49.025 \text{ (2900-250-2650)}$$

At 2900 previous E random line
we turn 90° E and set pts.

on 2nd Ea random line. from
this later we measure 49.03 W.
set sight

We go to tie of N. random line
and from this measure 3.5' west
with this as transit pt and
True N.E. sec. Cor as back
sight we start running true
E. sec. line.

Baldwin Keeping Notes

P.M. Scott

Wednesday August 18th 1915
Breakfast 6 A.M.
Assist Baldwin on
Correction of West
boundary line of Sec 28
Baldwin Keeping notes.

J.M. Scott.

Thursday Aug 19th 1915

Breakfast 6.10

Baldwin and I go to assist
J. W. Curo is survey of town
site for Ed. Rodgers.

Baldwin + Curo keeping notes.

P.M. Scott,

Friday Aug. 20th 1915

Breakfast 6.20

Clear & warm.

Baldwin & I assisting
J. Caro on Lot Survey for
Ed. Rodgers, Baldwin &
Caro keeping notes.

P.M. Sett.

Saturday Aug 21st 1915

clear + Hot.

Breakfast 6.30

Scott H+B. Transit

Curo Flag + Chain.

Horst Axe + Flag.

Wegoto East Random line of
Section 27- 142-31 which Curo
+ Horst have been running.

Scott + Curo chain.

32 59.2 A

34 59.1 A

36 24. old road running E+W

44 33.7 A

46 50 old road

46 84.6 True S.E. Cor Sec 27

142-31 sets 547' West.

P.M. Scott H+B Transit

Curo Flag + Chain

Horst Flag + Axe.

Goto E. Random line Sec. 28-142-31
to run true Sec line.

$$2304 \div 3672 = .062745$$

$$.062745 \times 1321.9 = 82.94$$

At right ls to E random line at
1321.9 with I.M. at S.W. Cor. as B.S.
We set hub West 82.94

Saturday Aug 21st 1915 - cont.
At this hub with I.M. as B.S.
we find our line runs into house
set. B.S. on house.

At H.G. to Ea random line at
1850 measure west the correction
116.08' set hub. with this as
Transit pt. and pt. on House as B.S.
We continue line No. Cutting
brush + and setting hubs.

At 1836 set Temp $\frac{1}{4}$ corner.

Baldwin in town all day.

P.M. Scott.

Sunday Aug 22nd 1915
Cloudy + rainy.

No work.

in camp all day.

J. M. Scott.

Monday, Aug. 23rd 1915.

Cold + Cloudy.

Breakfast 6.30.

Scott axe + Flag.

Baldwin - Alco Transit.

Curo - axe

Horst - axe.

We continue running East line
Sec. 28. Brushing cutting + setting
hubs but not chaining.

Find true N.W. Cor Sec 28, 142-31
Sets 1' West.

Curo goes after Swanberg
who goes to Gass Lake
Scott + Horst distribute 1.1M
on N. Boundary Sec. 28.

Baldwin, Scott + Horst set
1.1M. for No. $\frac{1}{4}$ Cor. Sec 28.

P.M. Scott.

Tuesday Aug. 24th 1915.

Breakfast 6.30

Clear + Cool

Scott H + B. Transit.

Baldwin Chain + flag.

Miller Chain + flag

Horst axe.

Hardig axe.

Cora axe.

We go to complete west random
line of sec. 29.

Miller keeping notes in detail

P.M. Scott.

Wednesday Aug. 25th 1915

clear + Cool

Breakfast 6.30

Scott, H. + B. Transit.

Miller Flag + axe

Hardig axe.

We start west $\frac{1}{16}$ line
Sec. 29. running North Miller
Keeping notes in detail.
Brush very heavy.

P.M. Scott.

- 21 -

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Thursday Aug. 26, 1915

clear & Cool

Breakfast 6 A.M.

Scott H. + B Transit

Miller Flag + axe

Harig Axe

We continue running w/ the line
sec 29. Miller keeping notes
in detail.

Very difficult Brushing

P.M. Scott.

Friday Aug 27th 1915

Breakfast 6 A.M.

Clear + warm.

Scott. H. + B. Transit.

Miller. Axel + Flag.

Harig. Axel

we continue w/ $\frac{1}{16}$ line find.

(90° from random) true $\frac{1}{16}$ cor. of
west $\frac{1}{16}$ line sec 29 sets 122° East.

on the true $\frac{1}{4}$ cor on E line sec
29 as transit pt. and sec cor 29
as B.S. We turn 78° 54' to right

we run random Et w. $\frac{1}{4}$ line. we
set hub at intersection of East $\frac{1}{16}$.
+ Et w $\frac{1}{4}$ line.

JM Scott.

- 23 -

43

Saturday Aug 28th 1915 -
cloudy & rain all day.

No work.

P.M. Left.

Sunday Aug. 29th, 1915

Clear + cool

Breakfast 6 A.M.

Scott. H. + B. Transit

Miller Axe + Flag.

Harig Axe.

We continue running E + W $\frac{1}{4}$
line running west. Set P.I. of E + W
+ N + So. $\frac{1}{4}$ lines, + P.I. w/lot E + W
 $\frac{1}{4}$ lines. Find true $\frac{1}{4}$ cor sets No
76.6 ft

Miller keeping notes in detail

P.M. Scott.

Monday Aug 30th 1915

Clear + Warm

Breakfast 6 A.M.

Scott. H + B. Transit

Baldwin. Aleo Transit

Horst Axe + Flag.

Harig Axe + Flag.

Curo Chain + Flag.

We go to center of Sec. 29. 142-31
and set true corner. Baldwin +
Curo chain so $\frac{1}{2}$ of N. + So. $\frac{1}{4}$ line.
We establish true $\frac{1}{16}$ cor on P.L.
of N + S $\frac{1}{4}$ line + S $\frac{1}{16}$ line.

With true $\frac{1}{16}$ cor as Transit P.T.
and 90° to random line as F.S. For
H + B Transit we turn \angle
Arise west.

Miller in office all day.

Baldwin Keeping notes in detail

P.M. Scott.

Tuesday Aug. 31st 1915

Clear + warm.

Breakfast 6 A.M.

Scott H. + B Transit

Baldwin Aleo Transit

Horst Axe

Harig Axe

Curro Axe + Flag.

In A.M. Scott + Harig continue running west on So $\frac{1}{16}$ random line find true cor set So 24' we set I.M.

P.M. We set True cor at inter of W + S $\frac{1}{16}$ Lines.

W $\frac{1}{16}$ + E + W $\frac{1}{4}$ lines. I.M.

W + N $\frac{1}{16}$ lines I.M.

N $\frac{1}{16}$ + N + S $\frac{1}{4}$ Lines I.M.

Miller in office all day.

Baldwin Keeping notes in detail.

P.M. Scott.

Wednesday, Sept. 1st 1915.

Clear + Hot.

Breakfast 6.30 A.M.

We all go to town to sign before auditor bills on sec 29.

Horst + Scott go after H + B. Transit.
P.M.

Scott H + B. Transit. + chain.
Horst Axe + Flag + chain.

We go to cor 2622, 27, 28 942-31
And with this as transit point and
True 1/4 cor. L-V-3 as F.S. we start
running true So. sec. line 22-142-31

845.2 Hub.

850 Edge of cut

906 \angle Main Trk. G.N.R.R.

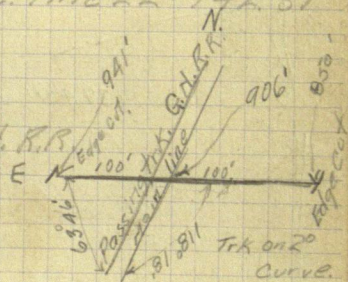
941 Edge of cut.

945 Hub.

1077.2 Hub.

1143.5 Water edge of lake May.

We set hub on East side of Lake
quit for night



G.M. Scott.

28

Breakfast 6 A.M.

Clear & Cool

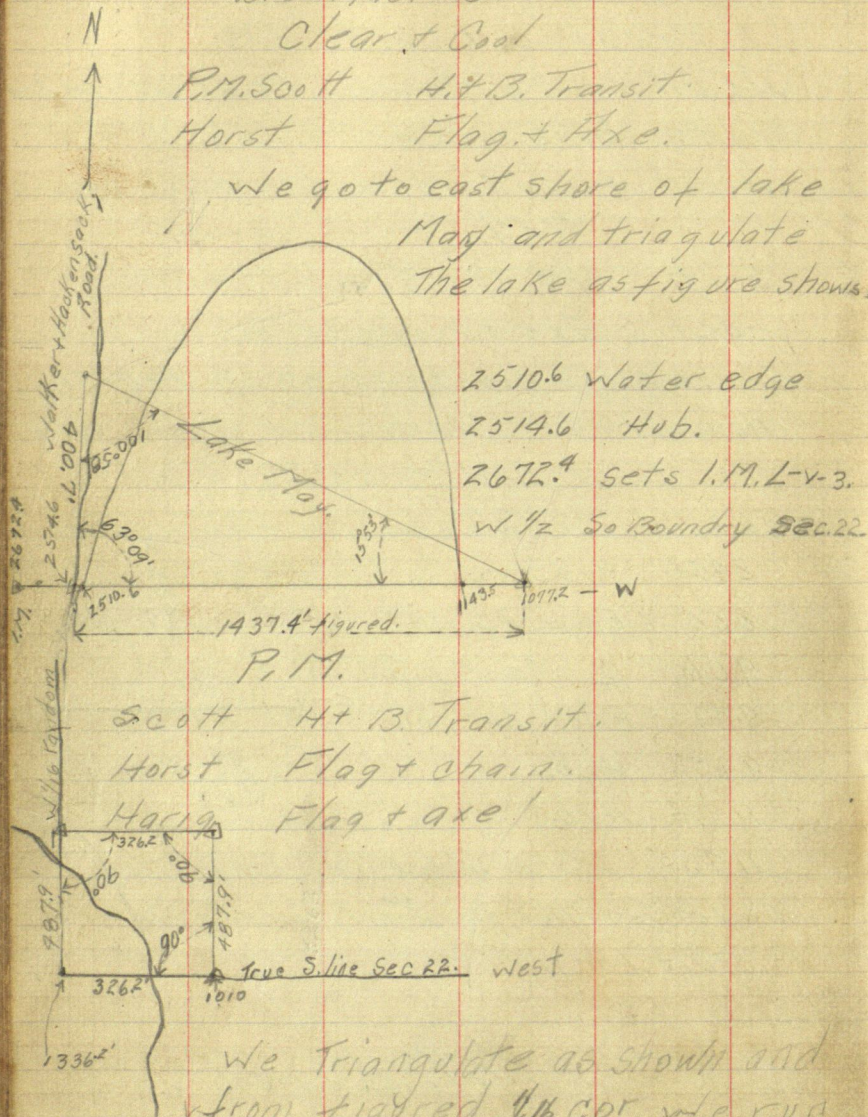
P.M. 500 H H. & B. Transit.

Horst Flag. + Axe.

We go to east shore of lake

Max and triangulate

The lake as figure shows.



we triangulate as shown and
from figured $\frac{1}{16}$ cor we run
North.

B. M. Scott

29

49

Friday Sept 3rd 1915

Breakfast 6 A.M.

Clear + Cool

Scott H + B Transit
 Horst Hxet Flag.

We continue running north
 on W 1/4 random Sec. 22 142 31

487.9 Hub.

527.9 road. E + W

804.9 Hub.

1894.8 Hub.

2239.7 Hub.

2326.1 Hub.

2783.2 Hub.

3049.4 Hub.

Quit for night

P. M. Scott.

Saturday Sept. 4th 1915

Breakfast 6.45

Fair + warm.

Scott. H. + B. Transit
 Horst Axe + Flag.
 We start at 3049.4 and cont.
 running $\frac{1}{16}$ random line Sec. 22,
 3165 edge I + M R.R. cut.
 3207 $\frac{1}{2}$ M + I R.R.
 3250 edge cut,
 3255³ Hub.
 At 3713.8 90° to random
 line true cor. sets West 2175'

Trk on 2° 30' curve P.M.

J. W. Curo + Scott meet members
 of S — township and go over
 what we have accomplished.

P.M. Scott.

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51

Sunday Sept 5th 1915

Breakfast 7:00

Clear & hot.

In camp all day. No work.

P.M. Scott.

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Monday Sept. 6th 1915

Breakfast 6 A.M.

Fair & hot

Scott H + B Transit

Baldwin Flag + axe

Harig axe

Horst axe.

We go to N. 1/16 random
 started by Baldwin +
 run east cutting brush +
 hubbing. Setting P.L. N 1/16 +
 W 1/16. N 1/16 + N + S. 1/4 random
 lines Sec. 28 142-31.

Baldwin keeping notes in
 detail

very hot

P. M. Scott.

53

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Tuesday Sept 7th 1915

Breakfast 6 A.M.

Fair + Hot Foggy in A.M.
Scott H + B Transit;
Horst Axe;
Harig Axe.

We continue running east
on N $\frac{1}{16}$ random, at 1927.4
on True East boundary of Sec
28 142-31 we find True $\frac{1}{16}$
Cor. Sets N 95.6 ft.

Then at the W $\frac{1}{4}$ cor of Sec
28 and with SW cor as F.S.
we turn 88°13' to left +
start E + W $\frac{1}{4}$ random line
running east cutting brush +
setting hubs.

Set P.I. E + W $\frac{1}{4}$ + N $\frac{1}{16}$ lines.

P.M. Scott.

Wednesday Sept. 8th 1915
clear A.M. Threatens rain P.M.

Breckfast 6 A.M.

Scott H. + B Transit.

Baldwin Flag + axe

Harig axe.

We continue running $\frac{1}{4}$ line
random east.

Horst leaves for Motley with
Corman.

N.W. $\frac{1}{4}$ at P.I. $\frac{1}{4}$ + $\frac{1}{4}$ random lines
87046'

P.M. Some party with
addition of Fusler cont. running
east and intersect $\frac{1}{4}$ G.N. RR.

N.E. angle $125^{\circ} 27'$

Baldwin + Harig chain to P.I.

Ea. Boundary Sec 28. 924.1'

Shore of Lake may is 170. from
 $\frac{1}{4}$ G.N. Trk.

By triangulation we find
true $\frac{1}{4}$ cor sets. 2.9' North.

Baldwin (keeping notes in
detail.

Baldwin + Scott Tying P.I.s.

J.M. Scott.

Thursday³ Sept 9⁵ 1915⁵⁵

Fair Day.

Breakfast 6:20 A.M.

Baldwin + Scott figure angle to
start S $\frac{1}{16}$ line.

Scott, H + B Transit.

Baldwin Flag + axe

Husler axe

Harig axe.

We go to S $\frac{1}{16}$ Cor sec 28 + 29 and
turn S.E. angle $90^{\circ}46'$ cut to West
 $\frac{1}{16}$ line go to dinner.

P.M. Scott, H + B Transit.

Harig axe + Flag.

We continue E on S $\frac{1}{16}$ line
set P.I. S + W $\frac{1}{16}$ lines. and run
east.

Baldwin goes to Mnpls. on
midnight train.

PM Scott.

Friday Sept 10th 1915,

Rain 6.30 A.M. Fair P.M.

Breakfast 6.30 A.M.

Scott H+B Transit.

Harrig Axe + Flag.

Tosler Axe

We cont. S $\frac{1}{16}$ line to N+ S
 $\frac{1}{4}$ line. Find true cor sets
 No. 95. We set true $\frac{1}{16}$ cor.
 1.9' East of random $\frac{1}{4}$ line
 At sta 807.8.

P.M. Find J.W. Curran camp.
 We all go to N. Boundary
 of sec. 27. and at 1. M.
 $\frac{1}{4}$ cor we start running.
 N+ S $\frac{1}{4}$ line, going So.
 Cutting brush + hubbing.
 Brushing heavy, yellow
 Sockets plentiful.

J.M. Scott.

37

Saturday Sept 11th 1915 57

A.M. Cloudy Rain 4.00 P.M.

Breakfast 6.30 A.M.

Scott H+13 Transit

Harig Axe + Flag.

Tusler axe.

We continue N+50 $\frac{1}{4}$ line
Sec. 27 running So. and find
90° from random true cor
sets east 53.6'

P.M. Scott + Harig with 100'
Chicago steel tape start
chaining random line rains
4.00 clock we quit for night.

P.M. Scott

58

-38-

Sunday Sept 12th 1915
cloudy + cool

No work.

in camp all day.

Prof. Scott

01177

$$\begin{array}{r}
 97.7 \\
 \hline
 8239 \\
 8239 \\
 \hline
 10593 \\
 1149929
 \end{array}$$

1787.

Monday Sept. 13th 1915

Cloudy threatening rain.

Breakfast 6.30 A.M.

Scott, Harig + Tusler go to 1/4 Cor. and chain So. to 1/4 Cor on So. Boundary 27. 142.31. Using 300' Chicago Steel tape

hub 4553.5 $\Delta 53.6$ - 0.1 m. 1/4 So. Boundary Sec. 27.

$\Delta 4406.9$ Hub. E 51.86

$\Delta 4251.6$ Hub. E 50.05

old road.

$\Delta 3925.8$ Hub. E 46.20

$\Delta 3731.3$ Hub. E 43.91

$\Delta 3450$

$\Delta 3350$

$\Delta 3122$ Abandoned road.

$\Delta 2936.8$ Hub. E 32.21

$\Delta 2122.9$ Hub. E 24.99 E

$\Delta 1787.9$ Hub. E 21.04

1133.25 E 13.34 = 1/16 $\Delta 1423$ Hub. gen E 16.75

2266.50 E 26.68 to Cor $\Delta 1167.2$ Hub. gen E 13.74

3410.00 E 40.14 = 1/16 $\Delta 1148$ wire fence 3 wire

N.E

$\Delta 913$ - 3 wire fence

N.E.

$\Delta 758$ N.E. Hackensack + Walker road.

$\Delta 706$ 3 wire fence

575 edge lake

Lake Francis

300 edge lake.

$\Delta 265$ Hackensack + Walker road

$\Delta 213$ - 3 wire fence

1 m. 1/4 Cor N. Boundary Sec. 27

142 - 31

S

Monday Sept. 13th 1915 Con

P.M. John. W. Curo comes out
in a car and we go to
Section 7-141-31. and
set N.E. cor. finding true
bearing trees. which are
as follows:

- A 1 -

61

Tuesday, Sept. 14th 1915

Breakfast 8 A.M.

Rain A.M.

No work.

P.M. No rain but cloudy.

J. W. Curo comes out and

we set True 50 $\frac{1}{16}$ Cor on
East boundry of Sec. 28 142-31

Baldwin returning from Mpls
Keeps notes in detail

J. M. Scott.

- 42 -

Wednesday. Sept. 15, 1913.

Cool A.M. Fair Heavy wind.

Breakfast 6.20

Scott. H. & B. Transit.

Harig Axe & Flag.

Weg. to No $\frac{1}{4}$ Cor Sec 27

and find we have run our

N. & S. $\frac{1}{4}$ random S-3°24'E

We then check Horst's chaining

on W $\frac{1}{2}$ of So boundary, which

is hubbed at following stas

 $\Delta 892.9$, $\Delta 1189.1$, 1290.5 wire fencerunning N. & S., $\Delta 1670.2$, $\Delta 2066.55$, $\Delta 2313.3$, and $\Delta 2443.65$

At Sta. 2596.9 we find true

N.E. Cor. sets N. 57.04 feet at

90° from random. at Sta 1298.45

We measure 28.52' North and

Set $\frac{1}{16}$ Cor.

We find that had we run

40' more east we would

have hit the So $\frac{1}{4}$ Cor. fromthe North $\frac{1}{4}$ Cor.So at $\frac{1}{16}$ Cor we start

running S-4°04'E Brushing

and hubbing.

Thursday, Sept 16th 1915.
Clear + Cool.

Breakfast 6.20.

Scott H. + B. Transit.
Harig Hxc + Flag.

We continue running 50 on E $\frac{1}{16}$
random line, and find True $\frac{1}{16}$
cor sets East 150.6'

Friday Sept 17th 1915.

See notes, book for work
done on Sec 7 142-31

S. $3^{\circ}24'E$

Sec. 5-142-31

Saturday Sept 18, 1915

Breakfast 5.45 A.M.

A.M. Threatens rain.

Baldwin, Scott, Tussler & Harig
go to sec. 5-142-31. on gas. car

Harig & Baldwin rerun chain.

Brants randoms.

Scott. H. & B. Transit.

Tusler Flag & chain.

A. Clarine Aye

C. Clarine Aye.

We go to N. W. Cor sec 5-142-31

Start w random S-8°27' E.

hubbing & chaining with Bootstrap
as follows.

True N.W. ?

True north boundary.
North random.

5178.9

388° Hub.

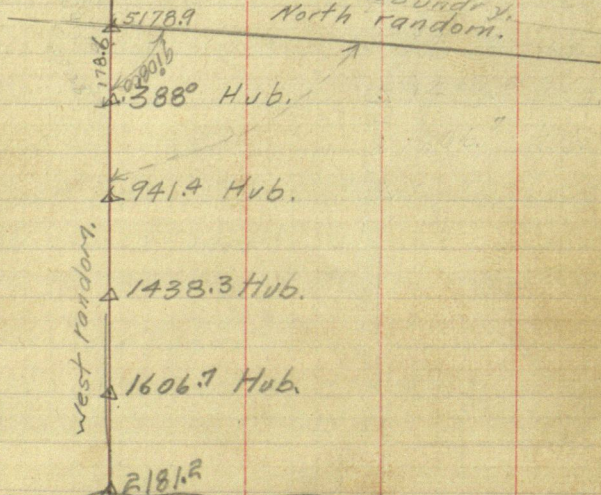
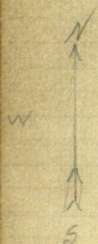
941.4 Hub.

1438.3 Hub.

1606.7 Hub.

2181.2

Bog (floating)



- 44 -

65

Sunday Sept 19 1915

Baldwin & I still staying
with Dan O'Connell

Baldwin & I correct N. Boundary of Sec. 3

Baldwin keeping notes in detail

We ride into walker after supper
with Alexander. Overnight
in tent. See Book N°

Monday Sept 20 1915

At Deepfield See Book N°

Sept 20 to Oct 2nd 1915 at Deepfield

Oct 3rd 1915 Sunday at tent.
rained

Monday Oct 4th 1915

On Sec 28-142-31

See Book —

Tuesday Oct 5 - 1915

Harris & I work on Location
of Curve on Chase Survey.

Toaster works in P.M.

Wednesday Oct 6 1915

Mr. John & I on Chase Survey
P.M. Scott.

Thursday Oct-7- 1915
 Johnson, Horst, and I
 go to Gorman's 50/16
 line of 22 and produce
 same to intersect
 Baldwins + Harigs' E.?
 random line of Sec 22
 142-31.

Friday Oct 8, 1915
 Horst + I work on Chase
 Survey in A.M.

P.M. J.W. Curo and
 I go to M.C. 36, Sec 22 +
 27- 142-31 where U.S. Post
 call for following B.T.

WP 16 N 25 W 19 = 12.54'

YP 16 S 61 W 19 = 12.54'

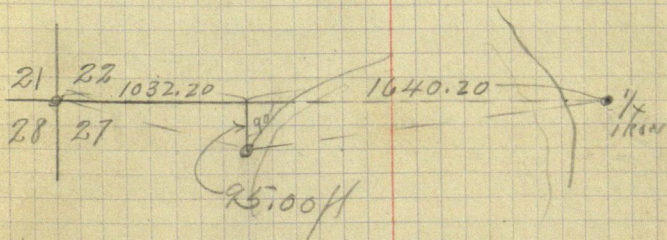
We find stump of S.W. B.T.
 from which we set Birch
 hub for true M.C. Var. $11^{\circ}03'$
 taken as a mean variation
 of the sec line running
 E + W from this point.

PM Luth

①

From Here East Line runs on
 about $14^{\circ}21'$ variation. and going
 West Line runs on about $7^{\circ}46'$
 Mean variation about $11^{\circ}03'$
 Mark following New BTs
 Pine Stump $10 N 6^{\circ}15' E 25.10'$
 ✓ ✓ $14 N 60^{\circ}33' W 26.10'$
 To tack in flat spot to Base
 var $11^{\circ}03'$

At a point on a straight line
 between S & W Cor 22 and the
 $\frac{1}{4}$ Cor on So Side being 1032.20
 East off sec. Cor. and 1640.20
 W. off $\frac{1}{4}$ Cor 17. C. No 36
 Just set bears South (90°)
 95.00 feet.



Saturday Oct 9 - 1915

To establish $W \frac{1}{16}$ cor
between Secs. 22 & 27, 14 & 31
Distance from M.C. 36 to the
 $\frac{1}{16}$ cor. is 253.44 govt. chain.
And the distance to $\frac{1}{4}$ cor. is
1573.44 ft. U.S. chain.

Total distance our chain is
1640.20' being 66.76' longer
than govt. chain.

Diff. = .042422 of a foot
Chaining East from M.C. 36
253.44 ft. U.S. = 264.19 ft. my ch.

At apt. on st. Et \checkmark line
bet. Sec. cor. + $\frac{1}{4}$ cor. being
95' No. and 22.2' we have
turned 90° + run North 487.9'
Thence at (90°) East 326.2'
thence North 3225.90 ft
At which pt. 1.17. at $\frac{1}{16}$
in cen. of $W \frac{1}{2}$ sets west
217.5 ft.

Correcting back

$$3713.80 \text{ goes West } 39.81 + 177.70 \\ = 217.50 = (.047813 + 39.81 W) = 217.5 W.$$

70

(4)

Sec 22-142-31

Oct 11-1915

FN Molyneux Caves + Horst
relieve the East bdy

142-26-143-26-142-31

Oct 9 to Oct 24

Road survey 5. 142-26 143-24

Monday Oct 25 1915 142-31

Tussler + I go to Sec 27 and
1st Transit on W side of
lake May. on Hub previously
set and sight on Hub on
E side lake May. Turn 60° 30
to the right start $\sqrt{1/6}$
Line running South.

Snowing + Blustery

Am. Scott.

141-31

Tuesday Oct 26 - 1915

Cloudy & Cold.

Wessler & I go to section
" on handcar. Cruise
for corners, but are
unable to find any.

C.M. Scott.

Wednesday Oct 27 - 1915

In camp all day.

Thursday Oct 28 - 1915

In camp all day. taking
down tent and getting
ready for winter.

C.M. Scott.

143-31

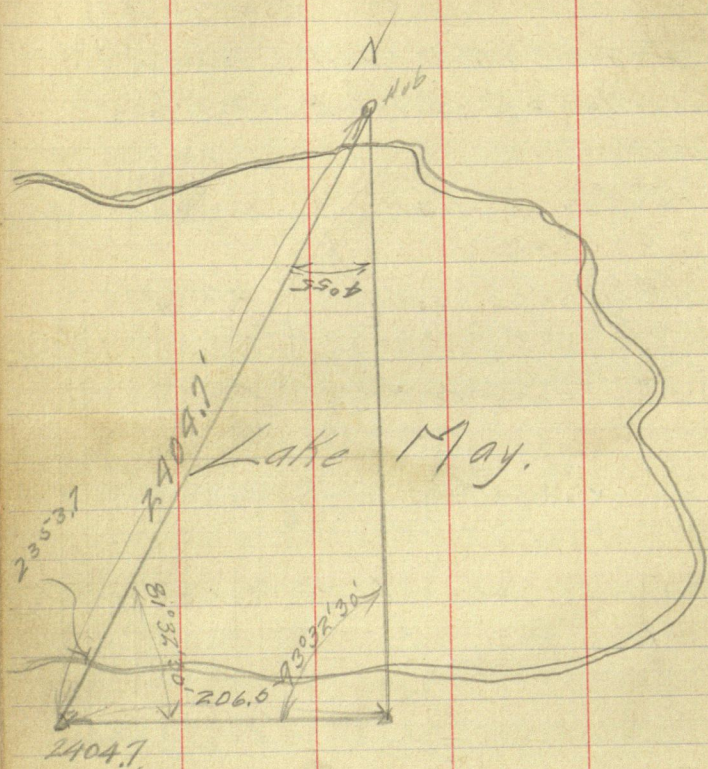
Friday Oct 29 1915.
J.W. Coro. + H. Coro + I go to
Sec 6-143-31 and check
up boundaries N + W of sec 6
143-31

Grindell takes us in his car.
When we return H. Coro
+ I go to Sec 27-142-31 and
start producing w/1/6 line

J.M. Scott.

142-31

Saturday Oct. 30, 1915



McMahon + I. go to Sec 27-142-31

Triangulate lake May as shown.

P.M. We continue W 1/4 Line
until we intersect So Boundary.
find W 1/4 Cor on So Boundary
set 55.2' west of random line

P.M. Scott.

142-31

Tuesday Nov. 2 - 1915
 Harig + I go to Section
 27 and chain line run
 by Mc Mahn + I Saturday
 Oct 30.

2715 Fence Net E + W

2815.0 Hub.

3061.0 Fence Net E + W

3908.9 Hub.

⁴4253.3 Fence Net E + W

4261.0 Farm road E + W

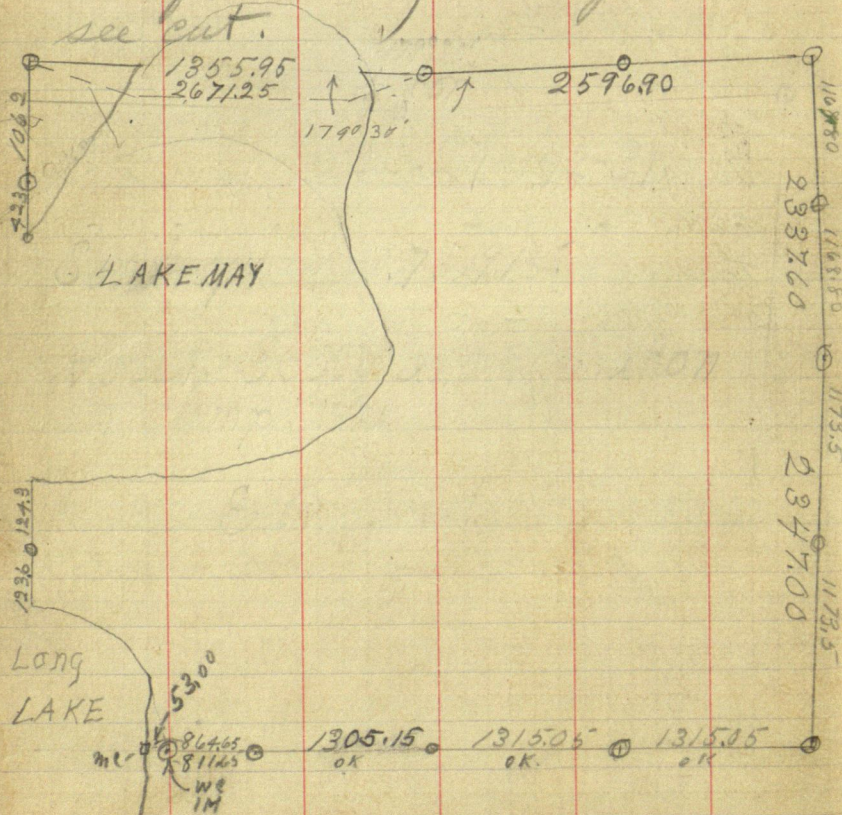
4690 Fence Net E + W

4693.5 Hub.

True $\frac{1}{16}$ cor sets w/ From random
 90° at 46935 - 35.2 feet.

Saturday Nov 6. 1915. P.M.
Horst, transit. Harold Curt flag
and chain

We go to cor of Sec 21-22-27-28
and set a large backsight
and return to $\frac{1}{4}$ cor N. Boundary
of 27. between Sec 22 & 27
we find the $\frac{1}{4}$ cor sets on sec 27
11.5 ft making the angle $179^{\circ}30'$
see cut.



Monday Nov. 8. 1915.

Scott and Horst work on plate
in office

P.M. Scott goes to Sec 7, I go to Sec 27
142-31 and establish $\frac{1}{4}$ cor on E. bdy
line of 27 between Sections 26 + 27
at 2337.6 ft South (of the N.E. cor.
of 27) where Govt notes call for B.T.s

Popple 4 N. 70. E 19

" " 2 S. 31. W 22

The Popple 4 N 70 E 19 is lost and
Popple 2 S 31 W 22 is broken off at stump
but is nailed to a wire fence and
plainly marked

$\frac{1}{4}$ cor Set E. of Random line 5.2 ft
at Sta 2337.6 ft S

E. B. Horst.

Tuesday, Nov. 9, 1915.

Horst transit. Tuler flag tape
we go to E boundary of Sec 27
142.31 and at Sta 1168.8 ft S
of N.E. cor of sec 27 and 2.6 ft E
of random line we set N $\frac{1}{6}$ cor
and start a random line W
across Sec 27. at an angle of $83^{\circ}42'$
sighting to a hut South of cor and
turning to right making the S.W.
angle $83^{\circ}42'$
we cut to E $\frac{1}{6}$ line and go to camp

E. B. Horst

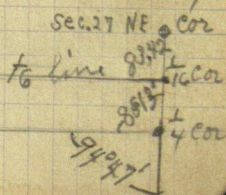
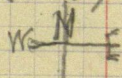
Wednesday Nov. 10. 1915

Horst transit. Tinsler flag + axe
we go to N $\frac{1}{4}$ line of Sec 27-142-31
and continue running line W until
stopped by rain at 11.30
Rain all afternoon

AM. Thursday. Nov. 11. 1915.

Horst transit Tinsler flag and axe
We continue N $\frac{1}{4}$ line of Sec 27-142-31
setting an intersection Hub on
N and S $\frac{1}{4}$ line. we sight across
lake May setting a Hub W of the
S. N. Ry. and continue to line to
the W boundary of sec 27. intersecting
the boundary line 32.2 ft S. of N $\frac{1}{4}$ cor.
P.M.

Scott and McMahon arrive at
camp and go with Tinsler and I
to $\frac{1}{4}$ cor on E boundary of sec 27
we turn an angle of $92^{\circ}47'$ from
random line and run W on the E & W $\frac{1}{4}$
line of Sec 27-142-31



Elmer B Horst.

Friday Nov 12 - 1915

Breakfast 7.30 P.M.

Cold + blustery.

Scott. + Horst. N+E Transit.

B.E. McMahon. Aret + Pig.

Tussler.

via continue E + 1/4 line

Sec 27, 142-31.

until we intersect N+S 1/4

line find P.L.s of randoms

of 1/4 lines at Sta. 2230.55 on.

N + So. 1/4 line (random)

2122.9

97.7

2220.6

45.9

2266.5

X

E 24.99

E 26.13

C. Sec. 27 E 26.68

45.9

1299.1

7.9

1307.0

1242.3

2549.3 Old Hub

63.5

2612.8

7.9

2604.9

1302.4

1299.1

2.3

1306.4

97.7

45.9

26.1

26.7

I. M.

2337.6

2336.4

1.2

2347

233

99.1

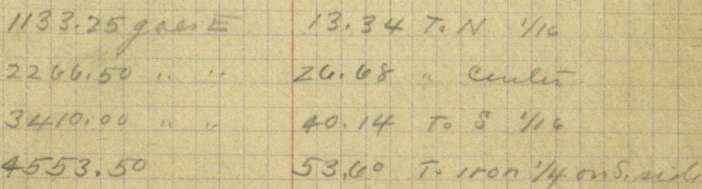
2127

2337

4461

2230.5

81


$$\begin{array}{r} 1298.5 \\ 1315 \\ \hline 2613.5 \end{array}$$

Saturday, Nov. 13. 1915.

Horst & Scott Transit

Tusler & McMahon on FLAG & chain.
we continue ^{true} E + W $\frac{1}{4}$ line to lake and set
P.I. Hub at intersection of E + W $\frac{1}{4}$ line & W $\frac{1}{16}$
line. we chain W from P.I. 9.13 ft and
set I.M. for true W $\frac{1}{16}$ cor on E + W $\frac{1}{4}$ line
We also set an I.M. temporarily on E + W
 $\frac{1}{4}$ line on East shore of Lake May for M.C.
We then go to P.I. of N + S $\frac{1}{4}$ line and N $\frac{1}{16}$
line chain E - 13.26 ft at Station
1130.42 ft So of $\frac{1}{4}$ cor on N. Side of sec 27.
and set an I.M. for true cor.
I then set Transit over above mentioned
cor and sight W across lake May to N $\frac{1}{16}$
cor on boundary line between 27 & 28
and set an I.M. on E bank of lake May
where N $\frac{1}{16}$ enters lake this also being a
Temporary M.C.

Edwin B Horst.

Sunday Nov 14 1915

Scott, McMahon, Tusler and Horst
in camp all day. Cold and windy.

Monday. Nov. 15 - 1915.

Horst transit Tinsler flag and chain

A.M. we go to S boundary of Sec 27.

142-31 and reset I.M. (formerly set by Carmen at Sta 1320 W from $\frac{1}{4}$ cor on S bdy 27 for W $\frac{1}{2}$ cor) we set it at Sta 1305.18 W from $\frac{1}{4}$ cor on S boundary being 1405 ft E of where it was

P.M. we prepare notes and plats preparatory to going to Sec 7-142-31

Elmer B Horst.

$$\begin{array}{r}
 2612.8 \\
 26.1 \\
 \hline
 2638.9
 \end{array}
 \begin{array}{r}
 .018 \\
 45.9 \\
 2638.9 \\
 \hline
 1951.10 \\
 1112
 \end{array}
 \begin{array}{r}
 26 \\
 0.2 \\
 \hline
 .5
 \end{array}$$

July 13th 1916

9 PomaseL transit G. Curo
chainman Goto N $\frac{1}{4}$ cor of sec
27 T142-31 and chain south
for check

start at N $\frac{1}{4}$ cor = 0+00

My chain 11+29.4 Hub is 13+1 west of N $\frac{1}{4}$ cor

" 11+66.4 Horst chain 11 67.2 Diff 0.8

" 14+23.4 " " 14+23.0 " 0.4

" 18+87.4 " " 18+87.9 0.8

" 21+23.2 " 21+22.9 0.3

" 27+36.8 destroyed

1129.4

2

2258.8

99
Copied

Sec 7. - twp 142 - Rge 31.

November. - 15. - - 1915.

Recorded

P.M. E.B. Horst & J.W. Curo look
up notes of work done on sec 7 by
Curo. Todd. & later in 1914 under Curo's
Contract No. 1. & begun May 14th 1914.
E.B. Horst.

Nov. 16 1915

E.B. Horst. transit E.L. Jusler flag &
chain

P.M. Curo hires car and takes us out
to above sec where we begin work
Jusler and Horst chain N to Random
line run by former survey to lake 1691 ft
Horst goes to hire Joe Jakrechi but he
is away so I hire Stanner & son
as axemen for the 17th E.B. Horst

Nov 17th

A.M. Horst. Jusler. & Stanner take out
5 I.M.s to N to Cor on W. Bdry line
We set & around the following I.M.s
N to - $\frac{1}{4}$ - S to & SW Sec Cor

P.M. Jusler & Hasker Stanner set I.M.s
on S Bdry W to - $\frac{1}{4}$ - E to & S.E. Sec Cor
I take Mike Stanner & we chain from S to
over
E.B. Horst.

November 1915.

Time Sheet for Sec. 7. Twp 142 Rge 31.

No.	Total No. of days											
	15	16	17	18	19	20	21	22	23	24	25	26
John McCune	$\frac{1}{2}$	$\frac{1}{2}$	0	$\frac{1}{2}$	1	0	0	1	0	0		
Edmer B Horst	$\frac{1}{2}$	1	$\frac{1}{2}$	1	1	1	1	1	1	1	1	1
Ernest J Tusler	$\frac{1}{2}$	1	$\frac{1}{2}$	1	1	1	1	1	1	1	1	1
Nick F Harig	0	0	0	0	0	0	0	1	1	1	1	1
Josef Jackoechi		0	0	1	1	1	1	0	1	1	1	1
Mike Stanner		1	0	$\frac{1}{2}$	1	1	1	0	1	1	1	1
Kaspar Stanner		$\frac{1}{2}$	0	$\frac{1}{2}$	1	1	1	1	1	1	1	$\frac{1}{2}$

Dec. 1915.

Edmer B Horst

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	1	1	$\frac{1}{2}$	1	1									

5 $\frac{1}{2}$ days

Nov 17 Continued 1915

P.M. on W to up to lake

E + W $\frac{1}{2}$ line P.I. at 2640 ft N
to Lake 3973 ft N

Nov - 18 - 1915. Heavy Snow.
AM. Curo, Horst & Jusler work on
Plat of Sec. 7 also look up more
Notes

P.M. We. Curo, Horst & Jusler
Set I.M.s for Chase in Walker
on work done by Scott &
F.W. Molyneux

Friday Nov - 19 - 1915

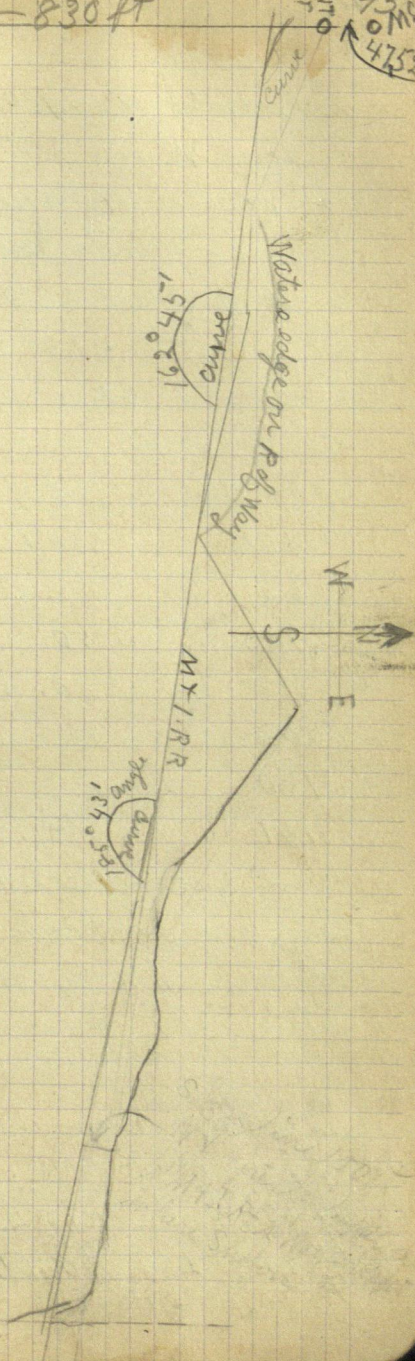
J.W. Curo. Horst transit Jusler chain
Jas. Jakosch run traverse of Lake
lake & M + S Ry according to
diagram on following page.

RMS Steamer & Son brush out N + S $\frac{1}{2}$
line formerly run in 1914.

Notes for diagram to E $\frac{1}{2}$ line We use M + S
track as a base for traverse and all traverse
calculations being made from same
Point A is where the W $\frac{1}{2}$ N + S line
turn to RR 94

W. Boundary. sec. 7. \odot $N \frac{1}{2}$ COR 830 ft

W $\frac{1}{2}$ COR
93 MC
4752



Sec. 7-142-31
Friday Nov. 19 - 1915 Continued

intersects M. & I. R.R. We start from Pt. A
& run W 400 ft to Pt. of curve shore line
at edge of Reefway
at 856 ft W P.I. of track 35 ft from center of
track Deflection $17^{\circ}45'$ to the S
P.I. = 40 ft @ 45 ft W land extends 1100 ft
on sharp pt.

@ 100 ft W 40 ft to water
" 400 " " Pt. of curve
" 522 " " 70 ft to lake
" 625 " " 85 ft to " "
" 700 " " 50. " " "
" 800 " " 20. " " "
" 900 " " 25. " " "
" 950 " " P.C.

" 1161. " " M. & I. & Co. Line Intersect
Curve has deflected at this pt 8 ft.

S.E. angle of track & Co. Line = $87^{\circ}20'$

Returning to Pt. A. W $\frac{1}{2}$ M. & I.

at 330 ft E Pt. of land runs Northerly at
an angle of 42° from track, 480 ft altitude
at 90° angle from track 390 ft at Sta 800 on track
at 1000 ft E P.C. 285 ft to lake
at 1232 ft E P.I. 43 ft N. of center Deflection
= $4^{\circ}25'$ at 1300 ft E 175 ft to lake

Sec 7 - Twp 142 - Rge 31.
Friday Nov 19 1915

95

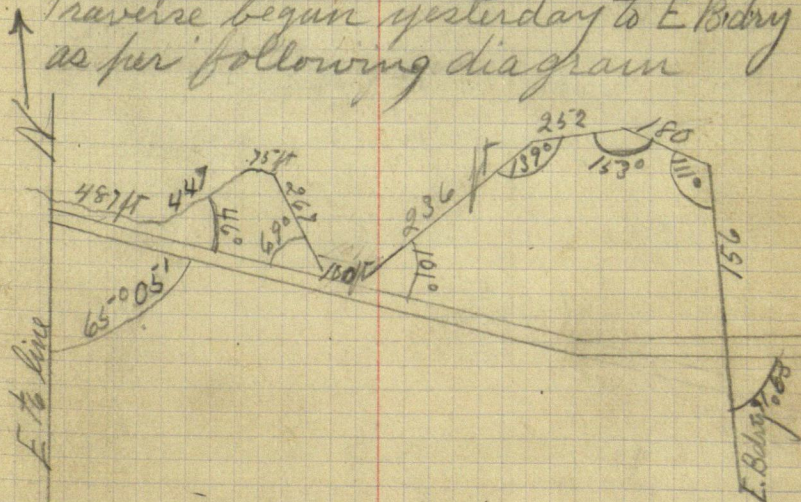
Continued

at 1650 ft E N + S $\frac{1}{4}$ line 135 ft to lake
at 1900 " " 168 ft to lake
at 2100 " " Pt 172 ft to lake
at 2800 " " 200 ft to lake
at 3200 " " Pt 272 ft to lake
at 3300 " " lake touches M + S Pt of way
at 3420 " " E to line intersects M + S Track
Elmer B. Horst

Sat Nov. 20. 1915

Horst Transit Busler chain
Joe Jakschi Mike Stanner + Kaspar
Stanner are

We begin at E to line + continue
Traverse began yesterday to E. Bidry
as per following diagram



sec-7-142-31

Sat Nov 20 1915

Continued

Tusler & Jakschi Chain E. Body
beginning at S.E. Sec corat 742.85 N 5 $\frac{1}{2}$ cor $\frac{1}{2}$ cor = 0.0 at 360 N M & R.R. at 473lake - Horst Transit Mike & Keaper
Stanner are we hat the E to line
through to lake setting a stub under
the fence on S side of M & I R.R. way
at 4.30 Tusler & I return
to Walker

Sunday Nov 21 1915.

Horst-Tusler - Scott & McMahon
all in camp at Walker

Elmer B Horst.

Monday Nov 22 1915
 Curo & Horst in office
 figuring traverse & platting
 lake shore of sec. 7-14 2-31

Tuesday Nov 23 - 1915
 Horst & Nick Harig go to
 Sec 7-14 2-31 on gas car
 We take Jakeschil-Stammer & son axe
 and go to E & W $\frac{1}{4}$ line as run by
 Roy Bryant and beginning at
 P.P. of W to line chain E to P.P. of
 E & W $\frac{1}{4}$ lines = 15.10 ft
 We chain back 755 ft set hub and
 turn angle of $97^{\circ}27'$ being N.W. angle from
 E & W random. We run S 478 ft and
 return to starting point and back sighting
 to S line hub we run line N to lake
 1183 ft

E.B. Horst.

See 7-142-31.

Wed Nov 24

1915

Horst Transit Harig Flag & Chain
Jakschi Stanner & Stanner eye
We go to Wth cor on S. Bdry Chain
N on Wth 1147 ft setting a hut at
this sta I take transit on hill
and sight to Sta cor on W. Bdry.
where Harig & Jakschi have
erected a large backsight
I adjust transit until on true
line between these 2 points
we then produce this line E to E. Bdry
of See 7 missing the Sta. cor 5.5 ft
to the N

E. B. Horst.

99

Thursday - Nov. 25 - Thanksgiving.
We have a glorious " " "

Friday Nov 26 1915

Horst. + Harig to sec 7-14231

We take Jakse's Stanner + Stanner
and go to ~~4~~ cor ~~cor~~ on W. Bdry. Turn
an angle of $10^{\circ}15'$ from random run
by Bryant and run line E to a
point 742.85 ft N of St. cor on E Bdry
We miss this point to the S 10.2 ft.

Sec 7-142-31

Sat. Nov - 27. 1915.

Horst transit Havig flag & chain
 Jaksehi Stammer & Stammer age
 We go to N to cor on N Bdy line
 and start N to line E turning S from
 Bryants random 15-05' run E to
 W to line very heavy cutting

P.M. Havig takes Jaksehi & Mike
 Stammer and sets 1.M. son S to line
 at P.I. of E & S to lines cor goes S. 42 ft
 at " " S to & N to S to cor goes S. 2.9 ft
 at P.I. " S to & W to cor goes S. 1.6 ft
 Kaspar Stammer & I correct E & W to
 line running true line through
 Jaksehi's property in order to
 locate position of his buildings
 true line passing through Barn

Sunday Nov 28 1915

Horst - Havig & Scott in camp

Edmer B Horst

Sec 7-142-31.

101

Monday Nov 29 1915

Forst Harig Jaksehi Mike Stanner
& Kaspar Stanner set I.M.s

Harig Jaksehi & M. Stanner set
I.M.s on E & W $\frac{1}{4}$ line beginning
at W $\frac{1}{4}$

W $\frac{1}{4}$ goes N 3.6 ft

cor on line dividing Lot 3 goes

N 4.5 ft

cor on N & S $\frac{1}{4}$ line goes N of P.I. Hub
5.4 ft

cor on E $\frac{1}{4}$ line goes N 7.8 ft

Forst & Kaspar Stanner set

M.C. on E & W $\frac{1}{4}$ line (as a Boundary

to S line of Lot 2) 233 ft E of E $\frac{1}{4}$ cor

distance to track 109 ft E to lake 75 ft

Tuesday, Nov. 30, 1975.

Horst + Harig go to Sec. 7/42-31
We take Jakechi + Stanner + Son
and set following I.M.

at P.I. of N + W $\frac{1}{4}$ line an I.M.

1147.6 ft N of I.M. on E + W $\frac{1}{4}$ line

at 3910 ft N on W $\frac{1}{4}$ we set I.M. for
M.C. at lake

at 1661 ft N of E + W $\frac{1}{4}$ line we
set an (M.C.) (I.M.) on dividing line of
Lot 3

on N + S $\frac{1}{4}$ line set I.M. for M.C.

1049 ft N of E + W $\frac{1}{4}$ line (at lake)

P.M. Horst Harig Jakechi Mike
Stanner go to lake in S.W. cor of
Sec 7 and run traverse

diagram on following page

E.B. Horst

Sec-7 twp 142. Rge 31.



Dec. 1. 1915

Work in Curo's office
Dec. 1-2-3-4-5-+6 platting
and figuring acreage for
Sec 7-TWP 142-R31.

E. B. Horst.

Recorded.

E. B. Horst.

Sec. 22 - 142 - 31

105

Dec. 9. 1915 Thursday

Horst. transit. McMahon flag & apr
We go to W Bdry of Sec 22 at S $\frac{1}{4}$ cor
to run true line to old established
cor on N + S $\frac{1}{4}$ line set as a S $\frac{1}{4}$ cor
We chain E to W to P.H. Hub set by euro
Horst & Molyneux 1395.8 ft. at
Sta 1698.3 ft E old Hub set by
N.D. Gorman. at Sta 2860.7 ft E
cor sets S 233.6 ft

at Sta 1495 correction = 120 ft. we
chain S from Random run by euro 120 ft
& backsight on old cor producing
this line to W. Boundary. we miss tack
in true S $\frac{1}{4}$ cor 0.05 ft

Dec-10-1915-
We drive 60d spike at true cor of S
and W to lines also 1 in center of
G.N. main line 1st tie N of Signal tie
and 1 in center & 1 on each side of
grade going to G.N. Depot.

See-22-142-31

Sat Dec-11-1915

Horst takes three I.M.s
setting one at St^e cor on Wbdry
one at P.I. of S & W¹/₂ lines
and one at old cor P.I. of St^e
and N & S $\frac{1}{2}$ line

P.M. I help F.N. Molyneux
on Chases Lots. setting I.M.
E.B. Horst.

9-142-31.

Saturday April 7, 1917.

Ed B. Horst, working in
County Surveyors Office
copying U.S. Notes, and notes
of previous surveys in
the vicinity of and adjoining
sec 9-142-31.

Ed B. Horst.

3447

9-142-31.

109

Monday April 9-1917.

Horst in office
working on plats and
notes of sec 9-142-31

344

P.M.

Fred Grindall with car
takes me and outfit to
M+V R.R. track about one
mile N.W. of Morris Point
where the road becomes
impassible.

Grindall returns to Walker
and I carry a part of outfit
to Steve O'Connell and
return for the remainder
at Steve O'Connells for
supper and overnight
Livery Charges \$

E.B. Horst.

9-142-31.

Tuesday, April, 10-1917.
 Horst transit, S. true Cornell
 Chain & ap.

With transit over ³⁴⁴⁰ 1M.
 S. Line } at W $\frac{1}{16}$ corner between
 sec. 9 } sec 9 and 16-142-31
 I backsight W to 1M. at
 corner of secs 8-9-16-17
 foresight E and out
 true sec line to 1M. at
 M.C. No. 46 on shore of
 Secch Lake

N. Line } with transit over 1M. at
 sec 9 } corner to secs 8-9-16-17
 I sight E on W $\frac{1}{16}$ cor. between
 secs 9-16. and turn S.E.
 angle $126^{\circ}35'$ and run
 N. at $43^{\circ}10'$ Var. over a out
 out line probably run
 by Jas Middleton
 9.0 center of M+I. R.R. track
 245.0 set wood Hub & tack
 488.3 an old Hub on line
 E.R. Horst.

344.1

- 981.5 set wood Hub + tack an
old Hub sets 0.2 ft E
1085.0 Center of E + W road. (to rd)
1388.6 set wood Hub + tack an
old Hub sets E 0.3 Ft
1582.0 an old Hub E of line 0.3 Ft
1800.0 enter small field.
1972.5 set wood Hub (leave field)

The U.S. Notes call for a $\frac{1}{4}$
cor at 2640 ft N of sec cor
with following Bearing trees
Jack Pine 8 N 79° W 14 lbs = 9.24 Ft
" " 8 N 7° E 17 " = 11.22 Ft

we have not been near any
jack pine timber. all timber
along our line being popple + birch
except beyond Hub 1582.0 N
a few Norway pine trees + stump
about 400 ft S of Hub 1582
there is a heavy growth of J. Pine.

Hub 1972.5 N is about 80 ft
S of lake shore of Leech Lake
so we look for Bearing trees
to U.S. M.C. No 47

E.B. Horst.

344

where U.S. Notes call for post
and following Bearing trees.

Y. Pine. 6 S 10° W 200 lks = 132.0 ft

Y. Pine. 8 S 3° E 244 " = 161.04 ft

We find the stump of the
S.E. B.T. bearing the Marks B.T.
Plainly also the stump
of the S.W. B.T. but marks
are washed away

both stumps are at water
edge of over flowed land
and check fairly well with
U.S. Notes at about $9^{\circ}30'$ var
but setting the cor at this
var the line would pass
E of both stumps.

I set a point from these
stumps by courses from
our line after which the
stumps stand as follows
(using the line as due N.)

S.E. stump S $1^{\circ}20'$ E 171.5 ft

S.W. " S $8^{\circ}30'$ W 132. ft

this point is directly over
an old seawall which is

E.B. Horst.

844⁷

now under water.

we chain N. to this point.

2090.0 enter water of Leech Lake
 2248.3 point on ice for tempo-
 -rary M.C. No 47.

with transit over this pt.
 I backsight S on line and
 reverse telescope and turn
 telescope on I.M. at cor to
 see 4-5-8-9 - 142-31

(established by J.M. Curro.
 Co. Surveyor) line deflects E
 ($35^{\circ}50'$) - $34^{\circ}50'$ - Greene

as the ice is full of air holes
 triangulate the lake and
 swamp to get the distance
 to the sec. corner of 4-5-8-9

by sighting on sec cor^B I turn
 90° to the left and set a
 point on ice (Hut. C) distance
 $= 262.9 \text{ ft} = \text{base line}$

set transit on pt. C. and
 sight to temp M.C. (pt. A) and
 turn angle to sec cor (pt. B)

E.B. Horst

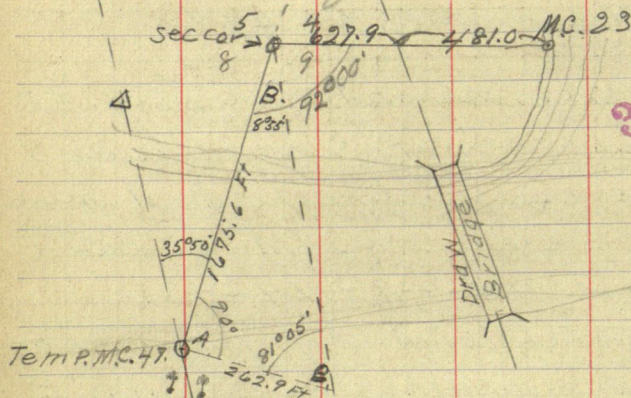
9-142-31.

angle = $81^{\circ}05'$ Tan = 6.37374

$$\text{Tan} \times \text{Base Line} = 1695.6 \text{ ft}$$

= distance from temp M.C.

to cor of sec 4-5-8-9.



3441

drawn

BN Railway

(N 43° 11' W Var 2)
2248.3 Ft.

8 9
- - - see cor
17 16

W 1/1

ME
No. 46

9-142-31.

344 ¹¹⁵

Wed. April. 11-1917.

Horst with same outfit and crew.
We look for M.C. No. 23 where
U.S. Notes call for post and
following Bearing trees.

Black Oak 10. S 27° W 57 lbs = 37.62 Ft

" " 7. S 48° W 20 lbs = 13.20 ft

I find Oak 10 S 27° W blown down
bearing an old blaze but marks are
all decayed and worn off there is
a 2 in Oak about S 48° W but is about
50 ft away so I do not use it

I set a post about 15 feet in lake
from the 10 inch Oak for M.C. No 23

I also set a Post 38 ft W of this cor
on line with cor of sees 4-5-8-9

so I can see it from G.N.P.R. track.

I set transit on G.N. Ry track
on line between cor of sees 4-5-8-9

and M.C. No 23 from this point
on track I triangulate the swamp
from the track by two triangles
to obtain the distance between
see cor and M.C. No 23

Chain Northerly on track 300 Ft. to
pt. C. transit on pt. A. sight W
E.B. Horst.

9-142-31

April 11, 1917. cont.

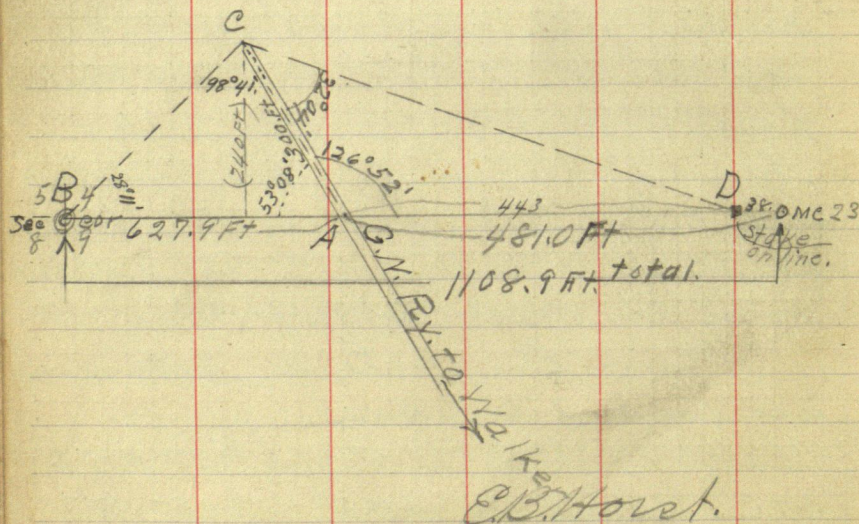
344

to see cor pt. B. and turn
N.W. angle $53^{\circ}08'$ to pt. C.

Set transit over pt C. and
sight on pt. A. turn angle
to pt B angle = $98^{\circ}41'$
(Second triangle).

with transit at pt C
sight to pt. A. and turn angle
to stake on line near M.C. 23
being pt. D. angle at C = $32^{\circ}04'$
angle at A = $126^{\circ}52'$

triangulation of swamp between
cor of secs 4-5-8-9 and M.C. No 23.



9-142-31.

April 11-1917 cont. 344¹¹⁷

I now take transit to cor of
secs 4, 5, 8, 9 in swamp and
sight S to M.C. No 47 on ice
and turn S.W. angle to put on
sec line on S.N. track angle = $92^{\circ}30'$
from this cor we chain S to
the approximate shore line at lake
distance = 567 ft.

I now go to walker with this
information to get Greene's
opinion on the section before
running any interior lines
Horst and J.M. Greene in
office until 10 P.M.

E.B. Horst.

9-142-31.

Thursday April 12-1917.

I work in office on calculations
until 10 A.M.

J.M. Greene instructs me
to take another hunt for
the $\frac{1}{4}$ cor between secs
8 and 9. and return to the
office with the information
before doing any more work

I walk to O'Connell's for dinner
P.M. Horst and Steve O'Connell
look all afternoon for the
 $\frac{1}{4}$ cor between secs 8 & 9

but find nothing

I return to Walker and
find Greene is not in
town overnight in Walker
E.B. Horst.

9-142-31

119

Friday April 13 - 1934

I hire a car at the Walker
auto co. to take me to Ten
Mile Lake to see J. M. Greene
in regard to subdivision of
sec 9-142-31 Charges \$2.50

(I pay for trip to Morris pt. total \$4.00)

P.M. I assist J. M. Greene
at Ten Mile Lake.

at. Prof. Delury's cottage
over night

E. B. Horst.

Saturday April 14-1917

Horst assisting J. M.
Greene at Ten Mile Lake.

Sunday April 15-1917

Horst at Walker.

E. B. Horst.

9-142-31

344

121

Monday April 16 - 1917.

I walk to S.J. O'Connell's place
to finish survey of Morris pt.

P.M. beginning at N $\frac{1}{2}$ corner
between sec 9 & 16 I sight
to cor of sec 8-9-14-17 and
turn N.W. angle $53^{\circ}25'$ and
run line N.W. parallel to sec line
at 58.0 Center of M+I R.R. E+W.
" 337.4 set Hub + tack
" 599.1 " " " "
" 806.6 set stake for center of
S.W. $\frac{1}{4}$.
" 935.7 set wood Hub + tack
" 1198.1 " " " "
" 1613.3 " " " " for
center of N $\frac{1}{2}$ sec 9-142-31
E.B. Horst

Steve O'Connell + son assisting.
E.B.H.

Tuesday April 17-1967, 4.3

Rain in the morning.

Horst and Steve Deonnell
walk to Hub 1582 ft N on
sec line between secs 8 & 9.

being temp $\frac{1}{4}$ corner

I set transit over $\frac{1}{4}$ cor
and sight N on line and
turn N.E. angle $125^{\circ}12'$ and
run $\frac{1}{4}$ line E

254.2 ft E set wood Hub & tack,
set transit N 1.4 ft back
sight on $\frac{1}{4}$ cor to miss a
small building

482.4 set wood Hub & tack

607.3 set " " " and
set S 3.34 ft on line and
set a Hub 2.65 ft S of Hub
482.4 back sight on same
and continue E

700.0 Center of road

868.4 set wood Hub & tack

1019.7 " " " "

1250.0 enter swamp.

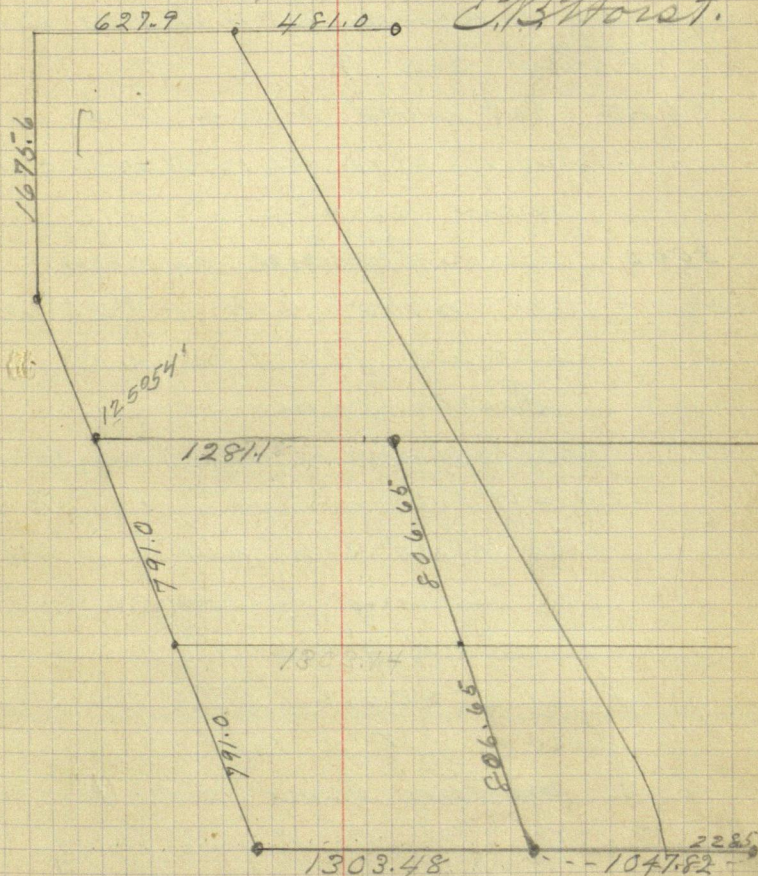
1283.8 set wood Hub & tack at
intersection of W $\frac{1}{6}$ line

9-142-31.

123

April 17-1917. ~~Stationed~~
 at sta 1599.2 ft Non W 1/4 line
 I send flagman across swamp
 to set Hub on R.R. track
 (PM - O'Connell & ^{WORK} Son) quit for night

C.B. Horst.



9-142-31.

Wednesday April 18-1917.

Horst, transit
 Steve O'Connell, Sr and Jr
 both assisting
 we continue E+W $\frac{1}{4}$ line E
 thru sec 9

3441

2048.8 set wood Hub & tack in
 center of S.W. Ry N.W. angle = $51^{\circ}35'$
 leave swamp at 2010.0

2300.0 enter Tellaine swamp.

2662.9 set wood Hub & tack on
 seawall 10 ft wide

2960 Leech Lake

We rechain W $\frac{1}{4}$ line, and
 E+W $\frac{1}{4}$ line to sta 1613.3
 and find I made a mistake
 in turning the angles for
 the E+W $\frac{1}{4}$ line

at sta 806.65 ft N on W $\frac{1}{4}$
 line I set a Hub & tack

on true line for the true
 $\frac{1}{4}$ cor (center of S.W. $\frac{1}{4}$)

turn N.E. angle $125^{\circ}54'$ and
 run line E to S.W. Ry track
 quit for night

E.B. Horst.

9-142-31

125

Thursday April 19-1917

344:1

Rain all day

No. work.

at S. J. Connells all day
C. B. Horst.

E. B. Frost.

7891011	2345678910	2122
101111 $\frac{1}{2}$	01110	$\frac{1}{2}$ 0 =
111	$\frac{1}{2}$ 11	$\frac{1}{2}$ =
	$\frac{1}{2}$ $\frac{1}{2}$ 1	$\frac{1}{2}$ =

[illegible][illegible][illegible]

9-142-31.

Friday April 20-1917.

Forest transit.

S. J. O'Connell & son ³⁴⁴ apex chainContinue S $\frac{1}{16}$ line of sec 9.

E to lake. 630. Enter swamp

830.0 ft E center of S. N. Ry track

1420.0 " " leave swamp

" " set wood Hub & tack
on W bank of Leech Lake

We walk to Wit cor to M.C.

Ne 46 where S line of sec 9
intersects Leech Lakeand run a meander line
northerly along shore of lake
with transit over Wit cor

& sight W on line and turn

N.W. angle $95^{\circ}20'$ Run N 290.6 ft,Thence Right $60^{\circ}03'$ 256.0 ft," Left $12^{\circ}08'$ 377.2 ft," Right $12^{\circ}37'$ 96.7 ftand intersect Hut on S $\frac{1}{16}$ lineS.W. angle = $23^{\circ}45'$

Continue meander line 105.5 ft

set Hut

9-142-31.

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April 30, Cont **344.1**

Thence Left $30^{\circ} 46'$ 112.8 ft,

" " $44^{\circ} 50'$ 98.4 ft,

" " $8^{\circ} 55'$ 204.0 ft,

" " $62^{\circ} 13'$ 83.5 ft,

" Right $43^{\circ} 38'$ 375.4 ft,

Left $75^{\circ} 57'$ 158.4

Right $20^{\circ} 06'$ 225.1

Left $33^{\circ} 18'$ 104.9

Right $40^{\circ} 37'$ 596.6 to Hut

on E+W $\frac{1}{4}$ line

thence Left $5^{\circ} 59'$ to random $\frac{1}{4}$ line
 ^{$42^{\circ} 33'$ Right}
 (02630.0 ft) thence left $7^{\circ} 55'$ to true $\frac{1}{4}$ line

We walk to a point where the
 S sec line of sec 9 intersects
 the G.N. Ry and Chain Non
 track. (Curve at P.P.)

at 558.6 ft end of curve,

" 798.6 " S $\frac{1}{16}$ line intersects
 R.R.

at 1648.6 ft $\frac{1}{4}$ line intersects
 G.N. Ry.

" 3202.6 S end of Bridge (Ry)

" 3379.4 N end of Bridge (Ry)

" 4533.6 intersect N line of sec 9.
 E.B. Horst.

9-142-31

Meander

Latitudes & Departures
 assuming south ~~red~~ line as

E + W

stations
 SW see cor
 or see 9 to
 Sta A.

	Dist.	Course	Cosine	Sine	North
Sta A.	23513	East	.00000	.00000	0.00
A to B.	290.6	N5°20'E	.99567	.09295	289.34
B to C.	256.0	N65°23'E	.41655	.90911	106.64
C - D	377.2	N53°15'E	.59832	.80125	225.68
D - E	202.2	N65°52'E	.40886	.91260	82.67
E - F	112.8	N35°06'E	.81815	.57501	92.29
F - G	98.4	N9°44'W	.99500	.09990	97.91
G - H	204.0	N18°39'W	.94749	.31979	193.28
H - I	83.5	N88°52'W	.15873	.98732	13.25
I - J	375.4	N37°14'W	.79618	.60506	298.88
J - K	158.4	S66°49'W	.39367	.91925	—
K - L	225.1	S86°55'W	.05379	.99865	—
L - M	104.9	S53°37'W	.58849	.80850	—
M - N	630.0	N83°50'W	.10742	.99421	67.67
N - O	2630.0	S88°15'W	.03054	.99953	—
O to SW cor ^{Sec}	1582.0	S36°58'E	.79899	.60135	—

9-142-31.

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34-43

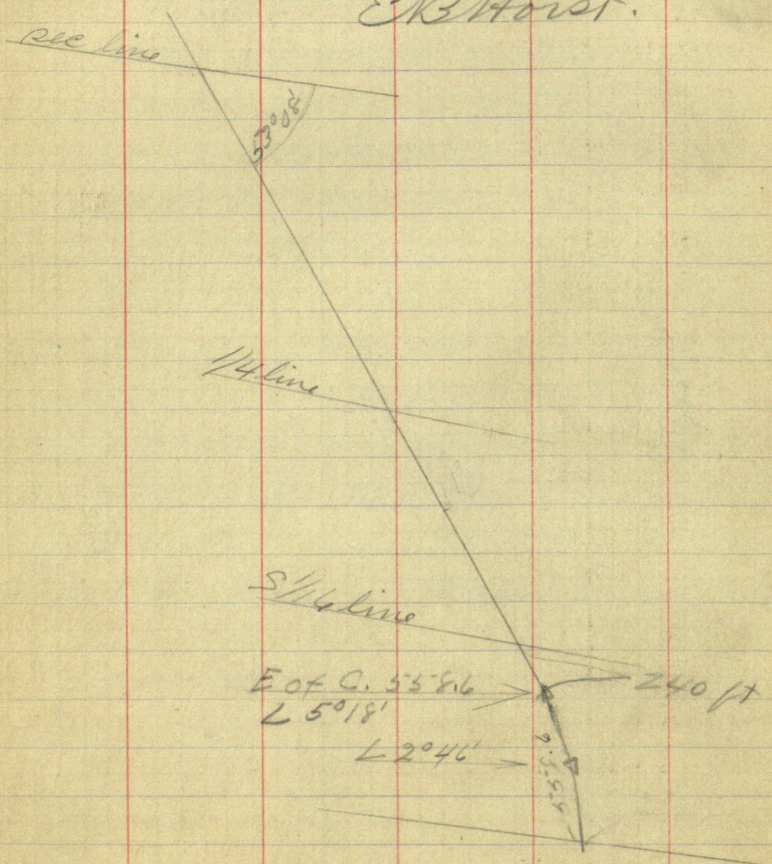
South	East	West
0.00	2337.30	0.00
—	27.01	—
—	232.72	—
—	302.23	—
—	184.52	—
—	64.86	—
—	—	9.83
—	—	65.24
—	—	82.44
—	—	227.14
62.36	—	145.61
12.11	—	224.77
61.73	—	84.81
—	—	626.35
80.32	—	2628.76
1264.00	987.33	—
1480.52		

9-142-31

344

April 20-1917 contd.

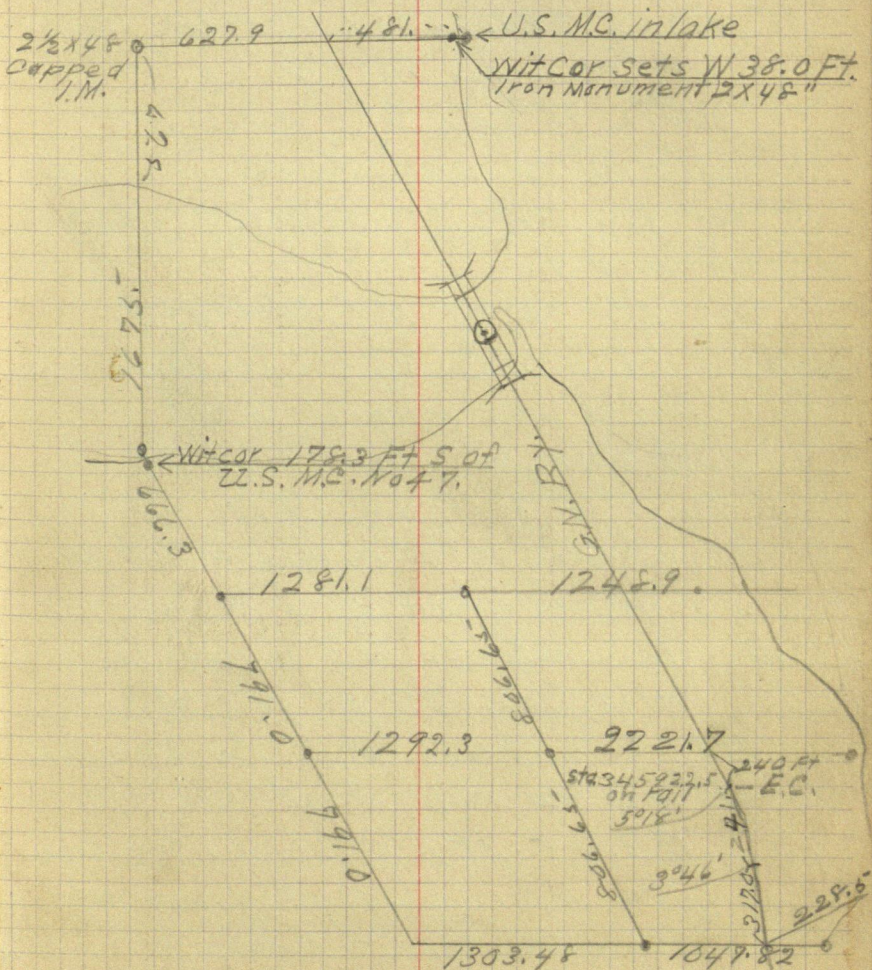
Horst & O'Connell walk to
Walker and get 8 I.M.s
and return to O'Connell's
on 5 o'clock M. & J. train
Fare for both .28 cts.
EKB Horst.



9-142-31

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344



9-142-31

Saturday April 21-1917

344

Forest, with S. J. O'Connell,
and Steve O'Connell Jr.
assisting set Iron Monuments
being 2x4 8 inch, Boiler flues
set 36 inches in ground.

with a marked guard
stake at each P.M.

at the $S\frac{1}{2}$ cor between secs
8 and 9.

at the $\frac{1}{4}$ cor bet secs 8 & 9.

To U.S. M.C. No 47 which
falls in water I set a
Wit Cor. at sta 2070 ft N
or 178.3 ft S of pt for M.C.

At center of $W\frac{1}{2}$ sec 9 set I.M.

" center of $S.W.\frac{1}{4}$ " 9 " "

at U.S. M.C. No 23 I set a
Wit. Cor. 38 ft W of M.C.

At sta 2630. ft E on random
E & W $\frac{1}{4}$ line I set an I.M.

23.45 ft N on true $\frac{1}{4}$ line
for M.C. (300 ft of swamp
from this cor to lake.

On the S $\frac{1}{4}$ line of sec 9.
Twp. 142. R. 31. at sta 2179.7 ft E
of the W $\frac{1}{4}$ line I offset 15.1 ft
N. 300 ft W I also set a Hub
Non true line

setting transit over corrected
Hub 2179.7 ft E backsight W
to Hub on true line and run
E 42 ft and set an I.M. for
M.C. about 12 ft W of water edge
thus completes survey for
H.W. MORRIS

National Stock yards, Ill.
P.M. Steve O'Connell and I
carry outfit to Walker
E. B. Horst.

7-142-31

135

Feb. 8-1918,

E.B. Horst working for
Joe Jakschi.

Ride out with Hilberg.

Begin at the S.M. at the center
of the S.E. $\frac{1}{4}$ section 7.

and chain N on E $\frac{1}{16}$ line
289 ft to the center of the

S.R.H. No. 82. from which
ash 10 bears N.E. 32.6 ft.

and Y. Birch 8 bears N.W. 51.9 ft.

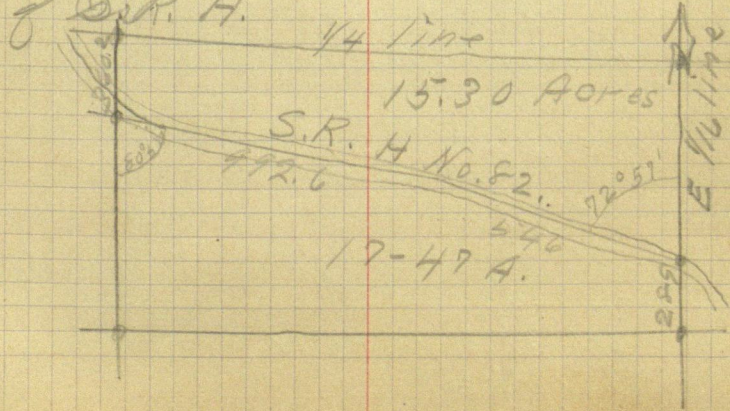
thence Left $72^{\circ}57'$ 546 ft

thence Left 992.6 ft to N+S

$\frac{1}{4}$ line intersecting same 360.2
ft S of center of sec 7.

S.E. angle = $80^{\circ}50'$

intersection is 40 ft S. of grade
of S.R.H.



Sec. 8 - 142-31

Int. W. Line Sec. 8 & M. 41. track

N.E. A = ^{90°39'}~~90°27'~~ Hub ^{3.4'}~~3.4'~~ to E. of track on© 1/16 Cor A with 1/16 Line fence =
76°36'49/480 ^{JE} Croff to R. Croff

51/264 v Westland to Heinsch

51/286 Heinsch to Overholt

54/607 R. Croff to Thompson

G. Claim to Ethel Olson to Minnie DeFloria

44/476-477 DeFloria

Kott to Timmerman 1/3 int

31/89 Lots 1-12 inc. also W 1/4 BLK 3 also part of Sec 8

School Lot - previously deeded in 186-287

To Thompson
to Beaux to
Westland

44/579 123 9 Gent Lots 2-3-4 Sec. 8

Lots 13-14 Kobakona sp

11/445-458-572

13/16-167-174-485

14-173-172-197

17-79-180

22-373-400-586

9-481

7/572-571

24-512

32/52 v

34/409 v

25/303 v

36/320 v

37/151-376-404 v v

33/558 v

48/192 v

Habeckona Springs

Sec. 8-14-31

N.E. 1/4 of S.E. 1/4 - Lot 1 of Sec. 8
N.W. 1/4 S.W. 1/4 Lot 2 Sec. 9

Vacated

Nestlund to Heimsch

255
270
290
305290
50
20
370

330
8.5 Th 5+8
60 50 235
" 13
" 12
" 11 305
" 10
" 9 400
" 8
" 7
" 6 430
" 5
" 4 445
" 3 450
" 2 445
50 1 390
8.4 Th 5+8
300

MAIN
1970
420
375 5+8
370 390
12 400
12 425
11 425
10 440
9 470
8 500
7 510
6 510
5 490
4 490
3 490
2 490
1 430
2nd ST
14 420
13 400
12 380
11 360
10 340
9 340
8 340
7 340
6 340
5 340
4 325
3 325
2 325
1 325
1st ST
475

1970

2730

760

700

Description: - Commencing at the corner bet. 8-9
thence east along the center line of Sec. 9
760'; thence North 400' to an iron mon on the
shore of Habeckona Bay the place of beginning,
thence S. 475' to an I.M., thence W. 2730' to an I.M.,
thence North 333 ft to an I.M.

$$\begin{array}{r}
 1099.25 \\
 00785 \\
 \hline
 549625 \\
 879400 \\
 \hline
 769475 \\
 8.6291125
 \end{array}
 \quad
 \begin{array}{r}
 43^{\circ}23' \quad 68688 \quad 72677 \\
 \hline
 2 \quad 9 \\
 \hline
 618202 \quad 654093
 \end{array}$$

$$\begin{array}{r}
 1099.25 \\
 6.5 \\
 \hline
 1092.75
 \end{array}$$

Line through S.E. Cor. 1.M. of Sec. 8
parallel to \angle of N. & 1.

$$\sin 5^{\circ}28' = 09527 \quad 193.84100.2 \quad 2065.8 \quad 2034.4 \quad 21.16 = 2042$$

$$\begin{array}{r}
 2034.4 \\
 38108 \\
 \hline
 38108 \\
 28581 \\
 \hline
 190590 \\
 193817288 \\
 \hline
 20344 - 4 \\
 09827 - 3 \\
 \hline
 192408 \\
 40688 \\
 \hline
 162752 \\
 81376 \\
 \hline
 98200488
 \end{array}$$

$$20658 - 3$$

$$04711 - 4$$

$$20658$$

$$20658$$

$$144606$$

$$82632$$

$$97319838$$

$$98200488$$

$$923$$

$$1953$$

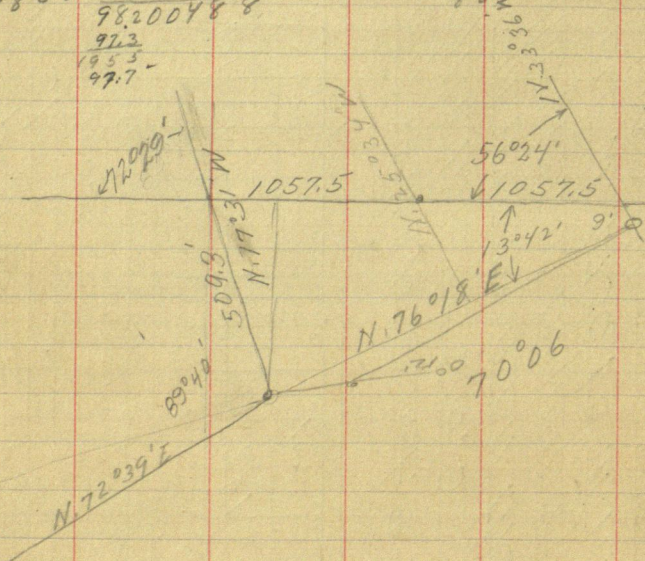
$$97.7$$

$$208 = 2045$$

$$97.7 \quad 20344$$

$$1954$$

$$804$$



$$\begin{array}{r} 4100.2 \quad 1092.75 \quad .02665 \\ \quad \quad 82004 \\ \hline 15^{\circ}27' \quad 272710 \\ \quad \quad 216012 \\ \hline \quad \quad 266980 \\ \quad \quad 246012 \\ \hline \quad \quad 209680 \end{array}$$

$$\begin{array}{r} 96386 \\ 41002 \\ \hline 192772 \end{array}$$

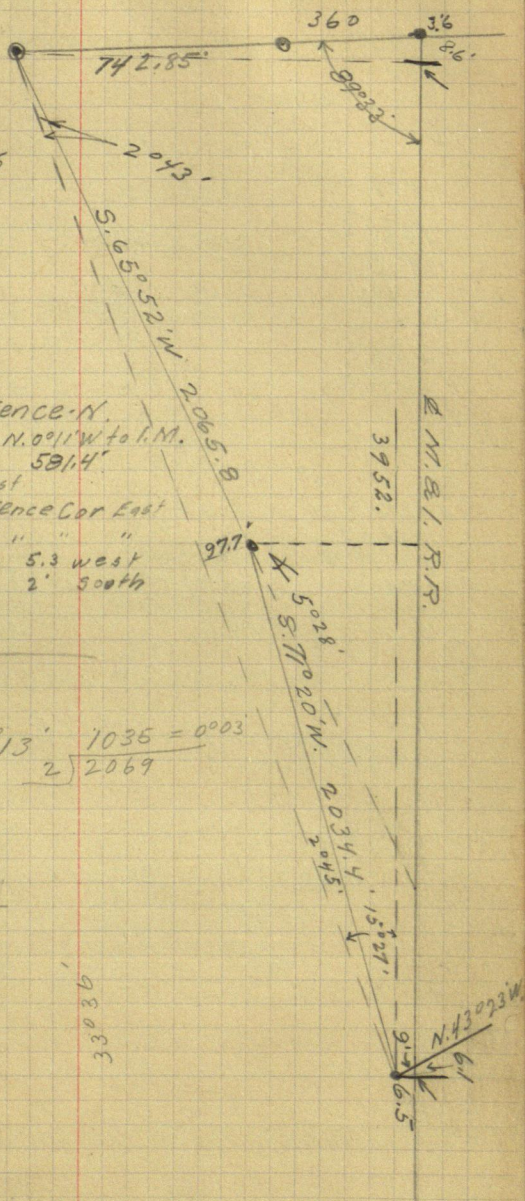
9638600
 385544
 3952018772

8.6
 6.1
 3966.7

0 865' Fence-N.
 0 1245.2' N. 0° 11' W to l.M.
 581.4'
 464.7 West
 303.4' Fence Cor East
 635.4 " " "
 Old Hub 5.3 west
 2' South

$$\begin{array}{r} 1413 \\ 829.8 \\ \hline 315.2 \\ 257.5 = 0^{\circ}13' \quad 1035 = 0^{\circ}03' \\ \hline 4 \overline{) 1030} \quad 2 \overline{) 2069} \\ \underline{8} \quad \underline{2} \\ 23 \quad 69 \end{array}$$

$$\begin{array}{r} N. 72^{\circ} 55' E \\ \underline{13} \\ N. 72^{\circ} 42' E \\ \underline{03'} \\ N. 72^{\circ} 39' E \\ \underline{90^{\circ} 20'} \\ N. 17^{\circ} 41' E \end{array}$$



7+8
1817

N. 0°39' W 1099.45

East

865 ± Fence North

381
1245.2 Spike 2 of Crossing
587

1734.5
200

1834.5 1734.5 Hvb Fence North

1934.5
1975.3

2186.5 2086.5 "

40.8

2900 2800 "

39446.9 38446.9 Int. Sec. Line

38451.6 Tack

2116.4

1734.5
38447.9

1984.6
2

N. 33°35' W.

56°25'

89°61'

sin 0°39'

1099.45

55315

83308

01134

9.8

9.8

439780

442520

666464

329835

497835

749772

109945

5420870

8164184

109945

124677630

1099.45

3.61

4100 $\sqrt{1091.35}$

8.1

82

271

246

253

246

75

1730

1091.4

3939.8 = ±15°29'

32742

66560

65484

10760

2116.4
1979.2
1911.4
67.8

10675
717750

141

$$\begin{array}{r} 1145.2 \\ 865 \\ \hline 280.2 \end{array}$$
$$\begin{array}{r} 742.85 \\ 360 \\ \hline 1102.85 \\ 3.4 \\ \hline 9.45 \end{array}$$
$$\begin{array}{r} 1962.8 \\ 1984.6 \\ \hline 3947.4 \\ 1832.5 \\ \hline 2114.9 \\ 0 \\ 1057.5 \end{array}$$
$$\begin{array}{r} 1975.3 \\ 1834.5 \\ \hline 140.8 \end{array}$$
$$\begin{array}{r} 97553 \\ \times 20 \\ \hline 1951060 \\ 34 \\ \hline 1985 \end{array}$$
$$\begin{array}{r} 447.3 \\ 8.1 \\ \hline 455.4 \end{array}$$
$$\begin{array}{r} 644.1 \\ 8.1 \\ \hline 672.2 \end{array}$$
$$\begin{array}{r} 20658 \\ 31178 \\ \hline 4165264 \\ 144606 \\ 20658 \\ 20658 \\ 61974 \\ \hline 644075124 \end{array}$$
$$\begin{array}{r} 21985 \\ 20344 \\ \hline 87940 \\ 87940 \\ \hline 65955 \\ 439700 \\ \hline 487262840 \\ 644.09 \\ \hline 1091.33 \end{array}$$

Bert Ganson Lot 1

John Hobman Lot 5 S. of Pt. of Way

Sophia Van Court Part Lot 2

P. G. Zimmerman $\frac{1}{3}$ and D. N. Mott Part

Miner de Florin N. $5\frac{1}{4}$ ac of Lot 4

" " " S.E. - S.W. of Lot 4

Freda Leslie Part of S.W. of S.W

Francis N. Overholt 17 ac of Lots 2-3-4

A. J. Thompson 20 x 48 fds

" " " S.E. of S.W.

John Hobman Lot 5 - Part of

Sophia Van Court N.E. of S.E. ^{N. of Ry} ~~complat~~

P. G. Zimmerman and D. W. Mott N.W. $\frac{1}{4}$ of S.E. $\frac{1}{4}$

A. J. Thompson S.W. of S.E. S. 10.75

Sophia Van Court S.E. of S.E. $\frac{1}{4}$ N. of Ry

John Westlund Lot 5 N. of Ry ^{line} $\frac{1}{8}$

10.75

3

13

Set 3

3.15

5.25

18.

30

17

6

19

11/8

37.75

IV.

25 1/4

10.75

35

16.87

254.15

165

20

330.0

1034.2

330

704.2

7024'

455.4

59.2'

7.69

59.2 455.4

4144

4100

3552

459

5480

5328

99167 455400

396668

587320

495835

914850

902303

144

S. 85° 30' W

N. 41° 46' W

N. 2° 17' E.

N. 41° 46' W.

1832.5

1000

832.5

875.8

43.3

472.8

611.1

650.8

39.7

39.7

2.6

N. 33° 36' W

34° 50'

N. 1° 14' E

393'

1172'

S. 88° 54' W 1565

N. 82° 29' E.

714.4

627.9

S. 89° 46' E

R.R.

472.8

178

650.8

87.5'

S. 50° 14' W (to 1/4 M.C.)

673.5 Lot Cor.

S. 89° W. 1565'

Original M.C.

W.C.

178

488.3

666.3

472.8

1310.2

3085.7

N. 386.4'

W. 4.4'

74.36 south of E on Curve

186.45

146.19.8

M. & I. R.R.

356.4

4

N. 0° 39' W

742.8

356.4

185.1

704.2

1099.2

12.4

N. 8° 51' W

330

N. 72° 45' E

792.7

399.2

1034.2

509.3

1013

486.3

1986

273.2

273.2

273.2

N. 73° 01' E

50'

50'

50'

875.8

1013

1013

1013

1013

1013

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1013

1013

N. 73° 01' E

50'

50'

50'

875.8

1013

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N. 73° 01' E

50'

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N. 73° 01' E

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N. 73° 01' E

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N. 73° 01' E

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N. 73° 01' E

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N. 73° 01' E

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N. 73° 01' E

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N. 73° 01' E

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N. 73° 01' E

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N. 73° 01' E

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N. 73° 01' E

50'

50'

50'

875.8

1013

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1013

N. 73° 01' E

50'

50'

50'

875.8

1013

1013

1013

1013

1013

1013

1013

1013

3962.4
1832.5

N. 17°31' W
959.59
433.0
4.2

17°31'
84.00
101°31'

145

5794.9
205.4
21578.5

N. 26°04' W
75.25

1342

24377
4.2
48754
97508
1023834

2894.2
36.3
2857.9
2853.7

101°29'
S 78°31' W

89828

246.4
1.0
273.2

4.2 Line goes 4.2 West

245.4000
179656
657440
628796

1832.5
1037.5
2890.0
36.3
2853.7

Kunz's Fene 1190.7
Lake shore 2208

286440
269484
169560
1368 Hub

X at 1/4 Cor. 54°23' NW.

6-2208 54°52'

658.5

1057.5
1057.2

Running E.-

X 2°15' L.

2026.5

2114.7
1832.5
3946.2

174310

245000

2°14' 03929

194310

3336 41247

506900

35509166

485775

41247

21125

13749

18006607

3523.5
3085.7 208

4378
3961.3

Kunz Fene

356.3

486.0 to 1193.4

43 300

3946.2

3961.3

842.3

29.1

3455.9

2709

1832.5

3929

9788.4

24381

2894

5418

24381

8127

10643661

364

314.6

X 17°31' = 23°32'

620.7

54°58'

N. 33°36' W

N 88°28' W 627.2

270.9

N. 1°32' E

66°28'

N 68°00' E

356.3

627.2

146

April 6, 1927

 $\frac{1}{16}$ Cor to center of M. & I.

360

473

165

638

Set mon 150

25.1 to hub

N. $55^{\circ}14'E$ X R. 455.4N. $48^{\circ}48'W$ N. $86^{\circ}35'E$

82.7

N. $33^{\circ}14'E$

371

N. $12^{\circ}25'E$ at 100 - N. $47^{\circ}W$ 452.2 S. $70^{\circ}W$ N. $49^{\circ}54'E$

363.5

S. $6^{\circ}04'E + 12^{\circ}25' = 18^{\circ}29'E$ - $\frac{1}{4}$ LineX X $12^{\circ}52'$ S. $6^{\circ}04'E$ 1177.9S. $12^{\circ}5'$ S. $18^{\circ}29'$ 293.3

379 X cross line

11241 X Wire Fence

S. W. A. $95^{\circ}59'$ 389' to

X track 1732.5 @ 81.2 line Track = 1705.3

1488.5 to Cor. 507.3 to

1832.45 - 3.5

= 509.3

N. $5^{\circ}17'31''$ N. $17^{\circ}31'W$

84'01"

121'32"S. $79^{\circ}28'W$

12'52"

N. $17^{\circ}31'W$

17'08"

N. $0^{\circ}23'W$ N. $17^{\circ}31'W$ 12'52"N. $4^{\circ}39'W$

17'08"

379

293.3

85.7

171.3

5.78°30'W
92°39'

171.09 ✓
08°51'

Rock Wall →

35.9

55.8

23.2

581.2 check

1124.1

1705.3

1088.5

581.2

507.3

1034.9

330

704.2

2068.4

1034.2

1088.5

581.2

507.3

N. 72°55' E.

N. 0°39' W

73°34'

116.9

1124.1

1241.0

1145

89°40'

1177.9

114.5

32.9

83.5

126.4

1177.9

83.5

1261.4

71°20'

65°52'

8

76°18'

72°39'

3°39'

6:04

0°23'

5°41'

270

25.1

150

1.11

330
85.4
154

W 1/16 Line

50.6 Rt. of Way

101.2 " " "

468 State 9' West

29
497 Inter - Kunz's Fence

230 Inter-swb

350 Lv. same - enter bar.

415.4

497- Run East to 1/16 Kunz 453.3'

101.2

N 87° 42' W

86.6
14.6

125° 54'
33° 36'
92° 18'

92° 18'

May 16 - Jude - Greene 1/2 day
Hunting Kab-spring

19 - Jude - Greene 1/2 day

May 23 - office - Greene

104.8

95363

100000

95363

463700

381452

822480

3.27085

14.4

1308340

1308340

327085

47100240

78.6

23.2

55.4

26.2

3

78.6

52.4

23.2

29.2

52.4

78.6

193.6

123.2

70.4

100

85.6

14.4

76°18'

33°34'

109°54'

70°06'

52.4

23.2

75.6

26.2

101.8

150

$$\begin{array}{r} 290 \\ 82 \\ \hline 372 \end{array}$$

$$\begin{array}{r} 290 \\ 60 \\ \hline 350 \end{array}$$

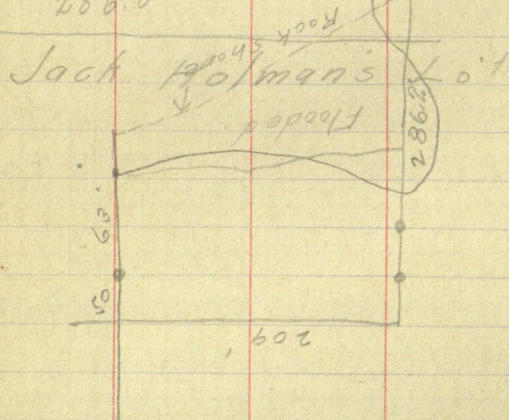
$$\begin{array}{r} 177.2 \\ 35 \\ \hline 227.5 \end{array}$$

$$\begin{array}{r} 360 \\ 348.5 \\ \hline 12.5 \end{array}$$

N. $0^{\circ}29'E$ 802.2 - 6.37 M.C. $96^{\circ}5'E$ ✓
348.5 to shore

N. $87^{\circ}42'W$ 142.1 - 227.5 to 90 to Kabekong Bay

S. $87^{\circ}42'E$ 18'

$$\begin{array}{r} 1479.4 \\ 1193.4 \\ \hline 286.0 \end{array}$$


Lake N. $75^{\circ}04'E$ 131' 100' across
Bears S. $45^{\circ}15'E$

E. 1/4 Cor.

$$N-1310.2 + 79.1 = 1389.3$$

$$E-3076.6 - 1968.4 = 1108.2$$

N. 92° 18' W 1970'

.04013	99919	-1
<u>1970</u>	<u>197</u>	-8
28091	699433	-
36117	899271	-
<u>4013</u>	<u>99919</u>	-
79.05610	1968.4043	-

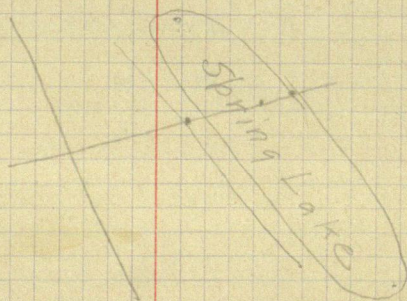
$$\begin{array}{r} 1124.1 \\ 116.9 \\ \hline 1241.0 \end{array}$$

$$\begin{array}{r} 1383.6 \\ 581.4 \\ \hline 802.2 \end{array}$$

North 1241.

1479.4

100' North -
250' South



30 11'

S. 47° 34' W

30 11

S 44° 23' W

90° 00'

87° 11'

2049

18° 35'

30 11

15° 24'

18° 35'

2049

15° 46'

24

3521

281
 .8) 225
 16
 65
 64

0° 12'

N 87° 11' W = S. 89° 48' W

Diff. = 3.05

89828 | 7500000

718624

313760

269484

442760

449140

835

Arthurs point

153

N. 58° 45' W

87° 11' S. 47° 34' W. 271.5' offset 90° 21.7'

29' S. 18° 35' W. 254.2'

S. 12° 33' E. 114.8' to I.M.

N. 87° 11' W to 1/4 Cor. 236.3'

S. 88° 30' W to Rock 11' 225.0'

I.M. to 1/4

Rock to 1/4

5430

East 225

Rock N. 10° 16' W to 0

I.M. N. 15° 38' W to 0

2049

13° 49'

N. 15° 27' E

87° 11'

8° 49'

2° 49'

3° 11'

18° 35'

2° 49'

21° 24'

15° 46'

18° 35'

18° 35'

3° 11'

15° 27'

15° 24'

88° 30'

86° 49'

10° 41'

18° 35'

1° 41'

16° 44'

1° 30'

3° 11'

4° 41'

1° 30'

3° 11'

4° 41'

1° 30'

3° 11'

4° 41'

1° 30'

3° 11'

4° 41'

1° 30'

3° 11'

4° 41'

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3° 11'

4° 41'

1° 30'

3° 11'

4° 41'

1° 30'

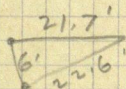
3° 11'

4° 41'

1° 30'

3° 11'

4° 41'



B.T. J.P. 7" N. 2.3'

J.P. 8 S. 4.3'

I.M. N.E. Cor.

8' from lake shore.

Hillaway 70° 51'

N. 86° 49' W

N. 86° 49' W

N. 12° 33' W

74° 16'

15° 44'

87° 11'

2° 49'

1° 30'

4° 19'

0756

0756

8316

221.2

155.3

15.5

8

.2

171.8

126.0

12.6

.6

.1

139.3

818

645.4

8.1

6.5

660.0

472.7

5.9

4.7

483.3

421.8

341.7

17.1

.9

.7

360.4

208.0

10.4

.5

.4

219.3

172.8

99.4

69.6

2.8

171.8

10.5

7.3

.2

.1

18.1

1323.6

360.4

1684.0

483.3

1200.7

18.1

1181.6

$$\begin{array}{r} 2728.6 \\ 171.8 \\ \hline \end{array}$$

$$\begin{array}{r} 2900.4 \\ 219.3 \\ \hline \end{array}$$

$$\begin{array}{r} 3119.7 \\ 660.0 \\ \hline \end{array}$$

$$\begin{array}{r} 3779.7 \\ 171.8 \\ \hline \end{array}$$

$$\begin{array}{r} 3951.5 \\ \hline \end{array}$$

$$\begin{array}{r} 729.5 \\ 597.1 \\ \hline 1326.6 \end{array}$$

$$\begin{array}{r} 2216.2 \\ 120 \\ \hline 2096.2 \end{array}$$

$$\begin{array}{r} 5485.6 \\ 120 \\ \hline 5365.6 \end{array}$$

$$\begin{array}{r} 1356.9 \\ 1323.7 \\ \hline 2680.6 \end{array}$$

Sr $6\frac{1}{2}$ days... 3325
Ja $3\frac{1}{2}$ days $11 + 288$
415

116

838

662

336

264

1000

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

ROADWAY 14 FEET WIDE. SIDE SLOPES $1\frac{1}{2}$ TO 1.

FOR SINGLE TRACK EMBANKMENT.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	7.0	7.2	7.3	7.5	7.6	7.8	7.9	8.1	8.2	8.4	0
1	8.5	8.7	8.8	9.0	9.1	9.3	9.4	9.6	9.7	9.9	1
2	10.0	10.2	10.3	10.5	10.6	10.8	10.9	11.1	11.2	11.4	2
3	11.5	11.7	11.8	12.0	12.1	12.3	12.4	12.6	12.7	12.9	3
4	13.0	13.2	13.3	13.5	13.6	13.8	13.9	14.1	14.2	14.4	4
5	14.5	14.7	14.8	15.0	15.1	15.3	15.4	15.6	15.7	15.9	5
6	16.0	16.2	16.3	16.5	16.6	16.8	16.9	17.1	17.2	17.4	6
7	17.5	17.7	17.8	18.0	18.1	18.3	18.4	18.6	18.7	18.9	7
8	19.0	19.2	19.3	19.5	19.6	19.8	19.9	20.1	20.2	20.4	8
9	20.5	20.7	20.8	21.0	21.1	21.3	21.4	21.6	21.7	21.9	9
10	22.0	22.2	22.3	22.5	22.6	22.8	22.9	23.1	23.2	23.4	10
11	23.5	23.7	23.8	24.0	24.1	24.3	24.4	24.6	24.7	24.9	11
12	25.0	25.2	25.3	25.5	25.6	25.8	25.9	26.1	26.2	26.4	12
13	26.5	26.7	26.8	27.0	27.1	27.3	27.4	27.6	27.7	27.9	13
14	28.0	28.2	28.3	28.5	28.6	28.8	28.9	29.1	29.2	29.4	14
15	29.5	29.7	29.8	30.0	30.1	30.3	30.4	30.6	30.7	30.9	15
16	31.0	31.2	31.3	31.5	31.6	31.8	31.9	32.1	32.2	32.4	16
17	32.5	32.7	32.8	33.0	33.1	33.3	33.4	33.6	33.7	33.9	17
18	34.0	34.2	34.3	34.5	34.6	34.8	34.9	35.1	35.2	35.4	18
19	35.5	35.7	35.8	36.0	36.1	36.3	36.4	36.6	36.7	36.9	19
20	37.0	37.2	37.3	37.5	37.6	37.8	37.9	38.1	38.2	38.4	20
21	38.5	38.7	38.8	39.0	39.1	39.3	39.4	39.6	39.7	39.9	21
22	40.0	40.2	40.3	40.5	40.6	40.8	40.9	41.1	41.2	41.4	22
23	41.5	41.7	41.8	42.0	42.1	42.3	42.4	42.6	42.7	42.9	23
24	43.0	43.2	43.3	43.5	43.6	43.8	43.9	44.1	44.2	44.4	24
25	44.5	44.7	44.8	45.0	45.1	45.3	45.4	45.6	45.7	45.9	25
26	46.0	46.2	46.3	46.5	46.6	46.8	46.9	47.1	47.2	47.4	26
27	47.5	47.7	47.8	48.0	48.1	48.3	48.4	48.6	48.7	48.9	27
28	49.0	49.2	49.3	49.5	49.6	49.8	49.9	50.1	50.2	50.4	28
29	50.5	50.7	50.8	51.0	51.1	51.3	51.4	51.6	51.7	51.9	29
30	52.0	52.2	52.3	52.5	52.6	52.8	52.9	53.1	53.2	53.4	30
31	53.5	53.7	53.8	54.0	54.1	54.3	54.4	54.6	54.7	54.9	31
32	55.0	55.2	55.3	55.5	55.6	55.8	55.9	56.1	56.2	56.4	32
33	56.5	56.7	56.8	57.0	57.1	57.3	57.4	57.6	57.7	57.9	33
34	58.0	58.2	58.3	58.5	58.6	58.8	58.9	59.1	59.2	59.4	34
35	59.5	59.7	59.8	60.0	60.1	60.3	60.4	60.6	60.7	60.9	35
36	61.0	61.2	61.3	61.5	61.6	61.8	61.9	62.1	62.2	62.4	36

Calculated by Julien A. Hall, M. Am. Soc. C. E.

MADE IN GERMANY.